IRSSM 7

7th International Research Symposium in Service Management

The Service Imperatives in the New Economy: Approaches to Service Management and Change

PROCEEDINGS

Hosted by Mahidol University International College

2nd – 6th August 2016

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PREFACE

The International Research Symposium in Service Management (IRSSM) is an international forum for service research scholars, professionals and practitioners to discuss important topics in relation to service management. This year, the IRSSM 7 is hosted by Mahidol University International College, Thailand.

IRSSM has become a leading conference for scholars and professionals in service research. The symposium enables participants to exchange ideas, share their research findings, discuss the latest trends and issues in service, both in theory and practice, and offers opportunities for publication of high quality research respected service management journals.

IRSSM 7 focuses on the overarching theme of ‘Service Imperatives in the New Economy: Approaches to Service Management and Changes’, and in doing so responds to the ongoing paradigm shift towards a service-based and experience-centric economy. This reflects the observation that companies must increasingly change the way they look at ‘service’, redesigning around the holistic customer journey and its various touchpoints.

We wish to thank all who contributed to the success of the event: the authors, the reviewers, the symposium chairs, the keynote speakers, the members of the scientific committee and the supporting staff for making this symposium happen. In particular, we thank Jay Kandampully, the IRSSM Chair, for his trust in MUIC and continual guidance, support and cooperation.

We sincerely hope that all participants have gained and shared useful knowledge, and that the symposium stimulated interest and new ideas in the evolving field of service management.

IRSSM 7 Scientific committee
On behalf of the Mahidol University International College (MUIC), it is my great pleasure and honour to welcome all of you to the 7th International Symposium in Service Management (IRSSM 7), organized and hosted by Mahidol University International College in Nakhon Pathom, Thailand, under the theme ‘Service Imperatives in the New Economy: Approaches to Service Management and Changes’. This year’s symposium theme encapsulated several aspects of service management in a variety of key business sectors, including tourism, and underpinned the need for collaboration of individual scholars from a wide range of service backgrounds.

As a host, MUIC is very proud to be part of this important event, to have the opportunity to welcome research scholars from different parts of the world, and to provide a bridge which links them together to cultivate knowledge in service management.

I sincerely hope that all participants had a fruitful and enjoyable time and had a chance to appreciate the wonders of the Thai hospitality and cultures while staying here in Thailand.

Assoc. Prof. Phitaya Charupoonphol
Dean of Mahidol University International College
Thailand
The international research symposium on service management (IRSSM 7) with the theme “Service Imperatives in the New Economy: Approaches to Service Management and Change” provides a forum for those who have a special interest in service research. The symposium hosted by Mahidol University International College, Bangkok, Thailand, brought together scholars, professionals and practitioners from various disciplines and countries and provided them with a unique forum for sharing the latest theories and practices prevalent in the dynamic service economies.

In this connected marketplace of the twenty-first century, service plays a significant role in the economy of every nation and every business in the marketplace. Increasing customer demand for superior service, the acceptance and the extensive use of information technology (IT), the Internet and mobile devises all have forced firms to rethink their business environment. An environment that allows organizations to offer higher value through its service to all stakeholders. This new environment of connectedness has transformed both the industry and the customer. The global advancement of service knowledge and practice is therefore imperative in motivating the next generation of service researchers, teachers and practitioners.

Please join me to congratulate and thank everyone those who have contributed to this symposium through their research presentations, reviewers, keynote speakers, panel speakers, workshop leaders, scientific committee, co-chair of the symposium, and the organizing members at Mahidol University International College. Thank you for helping to make this unique symposium and experience the true essence of ‘service’.

Prof. Jay Kandampully
Chair- IRSSM
CHAIR - IRSSM

Prof. Jay Kandampully

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Hosted by Mahidol University International College
2nd – 6th August 2016

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Effect of compassion fatigue on levels of service provided by pastors to their congregations

Robin Snelgar, Michelle Renard*, Stacy Shelton

Department of Industrial and Organisational Psychology, Nelson Mandela Metropolitan University, South Africa

Abstract

Compassion fatigue is a condition characterized by a steady decrease over time in individual abilities to care for others and feel joy. This feeling is often experienced by individuals working within helping professions, such as pastors. Compassion fatigue typically occurs when high levels of energy and compassion are expended, yet little internal peace or positive feedback is received in return for such efforts. For example, pastors may begin to feel de-personalized from their jobs because of high levels of emotional pressure they encounter together with continuous expectation that they demonstrate emotional empathy to their congregations. This study sought to investigate levels of compassion fatigue experienced by pastors across multiple denominations in South Africa in an effort to evaluate whether experiencing such exhaustion would affect their ability to serve their congregations. Quantitative and qualitative empirical data were collected. Quantitatively, our sample comprised of 282 South African pastors who completed either an electronic or paper-version of the Professional Quality of Life Scale, which measures compassion satisfaction as well as compassion fatigue [comprised of two factors, namely burnout and secondary traumatic stress (STS)]. The majority of the sample was over the age of 48 (66%), male (75%), married (70%), in full-time, paid ministry (82%), and worked in a pastoral capacity for over 10 years (77%). High levels of compassion satisfaction were found to be experienced by 45% of the sample, implying that they derive pleasure and professional satisfaction from performing their work well, helping others through their work, and contributing to the greater good of society. Regarding compassion fatigue, 54% of pastors experienced low levels of burnout, suggesting that the majority of pastors feel positive about their ability to perform effectively at work, and do not regularly feel that their efforts to make a difference to others are hopeless. Average levels of STS were reported by 68% of the sample, implying that they experience a certain degree of trauma stemming from being exposed to the stressful events of their congregations. Sixteen pastors qualitatively responded to a question that asked them to elaborate on how emotional exhaustion affects their ability to serve wholeheartedly members of their congregation. Burnout and STS cause pastors to be more impatient, critical, short-tempered, and overwhelmed. Such pastors are also often physically booked off because of illness, withdraw emotionally, experience less energy and creativity and heightened self-doubt and depression, consider suicide, experience poor sleeping patterns, question religious life as a career, and consider quitting the ministry. All of these consequences negatively affect their ability to serve their congregations emotionally and practically. For example, these effects could be seen through regretting harsh words spoken to others and/or avoiding interactions altogether by cancelling counseling sessions. Respondents highlighted that compassion fatigue has the capacity to crush pastors emotionally unless they surrender themselves through prayer, rely on God for sustenance, lead balanced lives physically, emotionally, spiritually, and mentally, focus on the positive effects that their ministries have on others, and commit to receiving therapy and/or spiritual direction from others.

Keywords: compassion fatigue, emotional exhaustion, burnout, pastors, churches

* Corresponding author
1. Introduction

Often referred to as vicarious trauma or secondary traumatic stress, compassion fatigue (CF) is a condition characterised by a gradual lessening of compassion over time (Khan, Khan, & Malik, 2015, p. 286). While researched predominantly amongst employees working within the medical field, CF is nonetheless experienced by any employees who constantly give of themselves emotionally to others, and who continuously have to show empathy or provide emotional sustenance to others in their jobs. As a result, pastors run the risk of experiencing this form of fatigue.

As noted by Evers and Tomic (2003), an ever-increasing number of pastors are experiencing severe burnout, including feeling de-personalised from their jobs owing to the high levels of pressure they encounter. In a study conducted on 1050 pastors across the United States on the topic of CF, Krejcir (2007) showed that one hundred per cent of the surveyed pastors knew of a fellow pastor who had experienced CF or burnout, with ninety per cent stating that they personally felt fatigued or worn out on a weekly or daily basis. Citing further research of his own, Krejcir (2007) highlighted that many pastors work more than 60 hours per week, which results in them experiencing physical and spiritual weariness together with a decreased ability to minister to, and connect with, their congregations. Owing to the fact that Khan et al. (2015) confirm that employees who suffer from CF are likely to experience de-personalisation from the services they offer within their jobs, and withdraw from those whom they are assisting, it can be inferred that pastors experiencing CF may not be in the position to provide adequate counsel and emotional/spiritual care to their congregation. This would be to the detriment of both the congregation’s and the pastor him or herself.

Coetzee and Klopper (2010) note that CF is often the final result of a progressive and cumulative process which occurs as a result of prolonged, continuous and highly intense contact with those the helper serves. It evolves from a state of minor compassion discomfort to excessively high stress levels which exceed one’s endurance level which results in CF (Coetzee & Klopper, 2010). Casey (2013) highlights how CF affects an individual emotionally, physically, cognitively, behaviourally, and often spiritually. We are of the opinion that it is this effect on one’s spiritual life as a result of CF that may be most detrimental to pastors in their provision of service to their respective congregations. Employees who suffer from CF show symptoms of hopelessness, lack of pleasure, anxiety, stress, sleeplessness, and an overall negative attitude towards life (Khan et al., 2015). CF has also been linked to decreased levels of self-efficacy, and confidence which may have detrimental effects on performance.

This study therefore sought to investigate the prevalence of compassion fatigue amongst pastors across multiple denominations in South Africa, in an effort to evaluate whether experiencing such exhaustion would affect their abilities to serve their congregations wholeheartedly. From a service management perspective, Hilton, Hughes, and Chalcraft (2012) highlight that service co-creation is a process that entails the display of planned resource integration behavioursl from individuals who intend to realise a value proposition. It is made up of value potential (an evaluative judgement that is personal and is an outcome of the service received), resource integration (composed of the behaviours, skills and knowledge that are required for a service to be created), and resource modification (which includes individuals determining, acquiring and developing their full range of resources in order to provide the service). This implies that in order for pastors to serve their congregations effectively, they need to capitalise on their own resources which includes their skills and knowledge, in order to be perceived to be of value to those to whom they minister. Thus, if pastors suffer from CF which in turn affects their emotions, physical capacity, cognitive processing abilities, behavioural outputs and spiritual intelligence, it would be apparent that their levels of service would be negatively affected from a service co-creation perspective.
1.1. Understanding compassion fatigue in context

CF forms part of a broader construct named Professional Quality of Life (ProQOL). Stamm (2010) defines ProQOL as the quality of life that one experiences in relation to their work as a helper. This author includes the clergy in her definition of helpers, who together with social workers, medical professionals, teachers, police officers, firefighters and disaster site clean-up crews serve others through their work. ProQOL is comprised of both a positive aspect (known as compassion satisfaction) and a negative aspect (in the form of burnout and secondary traumatic stress). Fig. 1 below shows the manner by which ProQOL is comprised of these constructs. Compassion satisfaction (CS), burnout and secondary traumatic stress (STS) will thereafter be briefly discussed.

![Diagram of Professional Quality of Life](image)

CS is the positive emotion that one who assists others is likely to experience (Stamm, 2010). It includes the pleasure, motivation and pure satisfaction one experiences as a result of helping those in need. Kelly, Runge, and Spencer (2015) note that CS energises the helper. CS can be enhanced through invigoration and being involved in activities which may renew his or her passion (Perry, 2008). Moreover, by the helper reconnecting to his or her initial purpose or intention for the job, he or she may experience CS, and counteract the negative symptoms of ProQOL. Higher levels of CS also generate feelings of confidence, success and a sense that one can keep up with work demands (Stamm, 2010). Slocum-Gori, Hemsworth, Chan, Carson, and Kazanjian (2011) discovered a negative relationship between CF and CS. They defined CS as feelings of energy and positivity that stem from providing compassion to others, which is the opposite of CF.

As noted, CF encompasses both burnout and STS. Stamm (2010) states that burnout is typically associated with feelings of hopelessness and difficulties in dealing with work or doing one’s work effectively. Maslach, Schaufeli, and Leiter (2001) note that burnout is comprised of three components, namely emotional exhaustion, de-personalisation of one’s work, and the diminishing of one’s personal accomplishments. Shoji et al. (2015) suggest that the diminishing of one’s accomplishments leads to decreased self-efficacy and decreased performance, which has a direct impact on those whom the helper aims to serve. Hooper, Craig, Janvrin, Wetsel, and Reimels (2010) states that high levels of burnout are also linked to high levels of voluntary turnover.

Stamm (2010) defines STS as work-related, secondary exposure to people who have experienced extremely traumatic and highly stressful events. In the case of STS, the helper may experience sleeping difficulties, intrusive images, or worry excessively about the person for whom they are
caring. Essentially, STS involves the helper reliving the trauma which the person they are counselling/caring for has experienced. Shoji et al. (2015) note that in extreme cases these individuals may even encounter symptoms of post-traumatic stress disorder due to the high level of sympathy they feel for the individual they are assisting. Kelly et al. (2015) suggest that STS occurs as a result of pressure, anxiety, and a variety of other negative emotions.

Hegney et al. (2014) discovered a correlation between burnout and STS, and a negative correlation between burnout and CF, while Whitebird, Asche, Thompson, Rossom, and Heinrich (2013) revealed a correlation between CF and stress, burnout, anxiety and depression. Moreover, Slocum-Gori, Hemsworth, Chan, Carson, and Kazanjian (2011) discovered a strong correlation between CF and burnout, and an inverse relationship between CF and CS.

2. Method

For the purposes of this research, pastors have been defined as full-time paid ministers or elders at churches, together with volunteer lay pastors who fulfil pastoral roles at churches including conducting hospital visits or providing grief or divorce counselling services. The study focused on pastors from five denominations, namely Catholics, Anglicans, Methodists, Pentecostal/Charismatics, and ministers from the Dutch Reformed Church (‘Nederduitse Gereformeerde Kerk’, abbreviated in English to the NG church).

Both qualitative and quantitative empirical data was collected for this study. The quantitative component entailed the administration of a questionnaire to a sample of South African pastors working within the church denominations mentioned above. We made use of non-probability sampling (convenience, snowball and purposive sampling), using an electronic and a paper-based version of our questionnaire. The paper-based questionnaire was distributed by physically dropping off copies to pastors working within 49 churches within Port Elizabeth, South Africa. We e-mailed the electronic questionnaire to pastors working throughout South Africa, using databases of the churches denominations mentioned above. These pastors were encouraged to send the e-mail with the questionnaire Web link to other pastors within our chosen five denominations, to increase the sample size.

The questionnaire measured demographic factors of the sample, and also included the Professional Quality of Life Scale (ProQOL; Stamm, 2010) which measures CS as well as CF (in terms of burnout and STS). ProQOL’s 30 items are distributed evenly between its three factors, with five items of the burnout factor needing to be reversed when conducting data analysis. It makes use of a five-point Likert scale that ranged from Never (1) to Very Often (5).

In total, 282 South African pastors completed the questionnaire. A fairly even distribution across the denominations of Anglican, Catholic, NG and Pentecostal/Charismatic was achieved. The majority of the sample was over the age of 48 (66%), male (75%), married (70%), in full-time, paid ministry (82%), possess some form of tertiary educational qualification (94%) and have worked in a pastoral capacity for over ten years (77%).
Table 1. Frequency distribution of demographic variables. (n=282)

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Church denomination</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anglican</td>
<td></td>
<td>65</td>
<td>23%</td>
</tr>
<tr>
<td>Catholic</td>
<td></td>
<td>64</td>
<td>23%</td>
</tr>
<tr>
<td>NG</td>
<td></td>
<td>64</td>
<td>23%</td>
</tr>
<tr>
<td>Methodist</td>
<td></td>
<td>17</td>
<td>6%</td>
</tr>
<tr>
<td>Pentecostal/charismatic</td>
<td></td>
<td>72</td>
<td>26%</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paid pastor/minister</td>
<td></td>
<td>230</td>
<td>82%</td>
</tr>
<tr>
<td>Volunteer/Lay pastor</td>
<td></td>
<td>52</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Tenure</strong></td>
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<td></td>
</tr>
<tr>
<td>0-2 years</td>
<td></td>
<td>14</td>
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</tr>
<tr>
<td>3-5 years</td>
<td></td>
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<td>9%</td>
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<tr>
<td>6-9 years</td>
<td></td>
<td>24</td>
<td>9%</td>
</tr>
<tr>
<td>10+ years</td>
<td></td>
<td>218</td>
<td>77%</td>
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<tr>
<td><strong>Gender</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>211</td>
<td>75%</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>71</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-27 years old</td>
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</tr>
<tr>
<td>28-37 years old</td>
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<td>35</td>
<td>12%</td>
</tr>
<tr>
<td>38-47 years old</td>
<td></td>
<td>54</td>
<td>19%</td>
</tr>
<tr>
<td>48-57 years old</td>
<td></td>
<td>79</td>
<td>28%</td>
</tr>
<tr>
<td>58+ years old</td>
<td></td>
<td>106</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
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<td>196</td>
<td>70%</td>
</tr>
<tr>
<td>Living with partner</td>
<td></td>
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<td>0%</td>
</tr>
<tr>
<td>Divorced/separated</td>
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<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>Widow/widower</td>
<td></td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>Never married</td>
<td></td>
<td>77</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
<td>Achieved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than Matric</td>
<td></td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Matric completed</td>
<td></td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
<td>40</td>
<td>14%</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td></td>
<td>63</td>
<td>22%</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td></td>
<td>163</td>
<td>58%</td>
</tr>
</tbody>
</table>

In addition to the above, we asked the sample of pastors who had been contacted electronically to answer a qualitative question that was separate to the questionnaire, namely —*If you have experienced compassion fatigue or emotional exhaustion as a result of your role as a pastor, please elaborate on how this has affected your ability to wholeheartedly serve members of your congregation?*. This was voluntarily answered by 16 pastors: six Pentecostal/Charismatic pastors; one Methodist minister; five Anglican rectors or deacons; three Catholic priests or sisters; and two NG ministers. Anonymity of these responses have been maintained by not referring to these pastors by name in the discussion of our results. Instead, pastors will be referred to as Participant A, B and so forth.

3. Results

The results of the quantitative phase of this study indicated that high levels of CS are experienced by 45 percent of the sample, implying that they derive pleasure and professional satisfaction from performing their work well, helping others through their work, and contributing to the greater good of society (Stamm, 2012). Zero percent of the sample experienced low levels of CS, with 55 percent experiencing average levels. Regarding CF, 54 percent of pastors experience low levels of burnout, with 46 percent reporting average levels and zero percent reporting high levels of burnout. This suggests that the majority of pastors feel positive about their ability to perform effectively at work, and do not regularly feel that their efforts to make a difference to others are hopeless (Stamm, 2012). Thirty percent of the sample experience low levels of secondary traumatic stress (STS), with 68 percent reporting average levels and only two percent experiencing high levels of STS. This implies that the majority of respondents are generally not experiencing problems stemming from being exposed to traumatically stressful events of others through the course of their work, such as fear or difficulty sleeping (Stamm, 2012).
Based on the results above, which indicated that CF does exist amongst certain pastors, we made the decision to explore this in greater detail through the use of qualitative data. Thus, 16 pastors responded to a question asking them to elaborate on how CF influences the service levels they provide to their congregations, as explained earlier. We have separated our discussion of these responses according to the denomination in which each pastor works.

3.1. Pentecostal/Charismatic responses

Participant A agreed that CF or emotional exhaustion can to a certain extent decrease her ability to serve the members of her congregation. This is because such fatigue makes her more prone to be impatient with others, which influences her being able to serve church members to the best of her ability. She further noted that CF can cause her to withdraw slightly due to lower energy levels.

According to Participant B, one of the first signs that he was exhausted was when he became angry and short tempered, and did not want to be disturbed by anyone. Moreover, he stopped desiring to help others. This led to avoidance behaviour where he would be unavailable through not answering his phone and withdrawing into himself. He seriously considered other job options, before he eventually recognised what was happening. He feels that he came out of this experience knowing what signs of fatigue to look for, thus hoping that if it happens again, he will be more alert.

Participant C, at the age of 77 years old, has been in the ministry for over 40 years, and has only once experienced emotional exhaustion. This occurred after one of his grandsons committed suicide at the age of 15, followed by his 26-year-old youth pastor being diagnosed with bowel cancer. He felt overwhelmed and ready to quit his job, yet overcame this through coming to the realisation that God was there for him. He now knows that circumstances can be overwhelming even if an individual has no history of depression. Participant C drew attention to the fact that ministry can crush a pastor if he or she does not feel a real sense of a call from God. He noted that humility (as opposed to the self-centredness of some modern ministers) is key to preventing CF, as is being internally secure and loving the work that one performs.

Participant D discussed how CF caused negative health consequences, such as being booked off for four months which severely affected his congregation. In addition to this, he noted that his congregation was negatively affected for a three to five year period during which time he was not leading as effectively as he could due to emotional exhaustion. Such fatigue impacted his capacity to engage people effectively. To survive, he moved into a maintenance / status quo position, but with a great deal of personal growth and intervention, he is now able to function at a more effective manner than previously.

According to Participant E, CF has affected her ability to serve wholeheartedly through the change she experienced in her heart, such as questioning the goodness of God (which she noted as a fundamental belief to the 'why' and 'how' of serving God and His people). She lost belief in the possibility of transformation of others, and become susceptible to cynicism, believing that people or situations may never change. This hardened her heart, which shut out God's voice to her and thus affected her ability to minister to her congregation without criticism. She poignantly stated that —a pastor without that hope cannot communicate hope to God's people. Such fatigue meant that her work became depressing and soul-destroying, and she became intolerant of weakness and foolishness in others.

Participant F explained how he has experienced emotional exhaustion/burnout on three occasions in his 45 years of pastoral ministry, with the one overall, constant effect being withdrawal from direct, one-on-one helping involvement with his parishioners, together with emotional —shut downl whereby
he was simply unable to face yet another needy person. He could not leave his house, being depressed to the point of weeping for no reason, and once experienced suicidal thoughts, though these were fleeting in nature. His first episode was accompanied by direct physical symptoms such as chest pain, which was diagnosed as heart strain and led to a doctor booking him off work for six weeks. This took him out of the work environment where he was serving his congregation. He had to cancel his counselling appointments and refer members of the parish to colleagues during this period. During the latter two episodes of CF, he has not been booked off work by a doctor and his ability to conduct other aspects of his ministry have not been affected. He continues to preach on Sundays and teach seminars, although on two occasions he did break down in the middle of such a presentation.

3.2. Methodist response

Participant G, the only Methodist minister who responded to our additional question, is a self-proclaimed introvert who prefers books to people and is intimidated by large groups at social functions. He noted that he suffers from exhaustion owing to a number of factors at his church. Firstly, he feels as though his vocation has been hijacked by church management, which contributes significantly to his weariness. Despite feeling called to the ministry and being reasonably equipped for his work of preaching, teaching, pastoring and leading, he feels less equipped to deal with human resource issues such as disgruntled staff or staff conflict, which causes him to experience a sense of misalignment to his job. Secondly, he is fatigued by needing to soothe over the pettiness of his congregation, which he explains as their discontent about aspects of the church such as the volume of the band, the clarity of the preacher’s microphone, the nature of the Eucharistic liturgy, the dress code of the preacher, and the manner of receiving the sacrament, amongst other complaints. Thirdly, this minister highlights that the church is dependent on volunteers of varying commitment levels in order to function effectively, which leaves him feeling vulnerable when such volunteers do not arrive, or resign without notice. This includes volunteers to operate the sound desk, lead fellowship, teach Sunday School and serve in missions. However, he notes that the act of caring for people in his congregation is typically life giving and rewarding to him, including serving his congregation through counselling, ‘palliative’ care, hospital / home visits to the elderly, and grief care.

3.3. Anglican responses

Participant H was diagnosed with burnout in 2013 and as a result, was hindered in his ability to function effectively in his role as pastor. His confidence was affected, and he would battle to enter stores or crowded areas for a number of weeks out of fear of bumping into someone who might need his attention. He felt that he had nothing to give, until he began taking medication and his antidepressants enabled him to function again. This pastor was able to continue leading services and preaching during this time, but was emotionally constrained when it came to direct interaction with people. This went against his compassionate and approachable personality. Participant H perceives that this period of burnout occurred as a compounding effect of emotional exhaustion, high stress and a large workload, together with difficult and complicated pastoral interactions, one of which related to his extended family. He felt that he should have been able to deal with these matters without getting so deeply hurt or worried owing to his pastoral experience, but was not successful in doing so.

Participant I suffered burnout in 2009 due to stress, which stemmed from three family deaths in that year together with his pastoral responsibilities, family commitments and overextending role as Dean of his local Diocese. When he was unable to balance these responsibilities, he needed to see a psychologist to overcome his fatigue. He noted that members of a congregation can be very
demanding, particularly when bereavements occur at church, making it difficult for him to counsel others whilst needing such counselling himself.

Based on the experiences of Participant J, he feels that there is a need for someone other than the bishop to absorb stress amongst Anglican clergy. This is owing to the fact that they usually present a brave face in front of others, hoping for advancement, when in reality he is aware of numerous cases of clergy resorting to alcohol to deal with their stresses.

Participant K explained how he needed to readjust his work lifestyle after he was diagnosed with diabetes, which was induced by stress and trauma. His stress stemmed from factors including being given much responsibility yet little to no authority; not being equipped with the skills needed to resolve conflict within the church; carrying the emotional burdens of his parish; and experiencing financial stress through having to fund his own studies yet receiving no financial rewards for developing himself educationally. In order to overcome his resultant fatigue, he created boundaries such as putting an answering service on his phone to indicate periods of non-availability, and also began to exercise more regularly and eat more healthily. He created a personal development plan for himself to promote balance in his life physically, emotionally and mentally, including attending lectures outside of work to stretch his mind; reading a book every month; and taking his children and wife on outings for coffee and meals in order to develop his personal relationships, since he feels that he is only as strong in the pulpit as he is secure in his personal relationships.

This participant went on to highlight that clergy often do not prioritise their physical well-being, instead focusing on their spiritual and financial wellness, and tend to place their congregations first and their own needs last. This results in the experience of vicarious suffering in an — unforgiving — environment, particularly when pastors are taken advantage of by their congregations (such as by parishioners who feel that because they pay the pastor’s salary, they must be available whenever they call). As a result, he feels that the rewards experienced by the clergy are no longer in proportion to their inputs. Yet, he highlighted that pastors often stay in their positions despite being fatigued, because they have no other work-related opportunities since many are not qualified enough to do anything else. They need to provide for their families, thus they continue in the ministry to make ends meet, performing their minimum requirements with few incentives to heighten their efforts.

3.4. Catholic responses

Participant L experienced emotional exhaustion at different times in her leadership ministry, which affected her ability to serve her congregation effectively because she became short-tempered, irritable, and annoyed at insignificant things. Realising how such exhaustion occurred helped her to commit to regular supervision, therapy and/or spiritual direction.

Participant M has experienced CF, constant stress as well as emotional and physical exhaustion in his 48 years of ministry, of which 41 years were spent in leadership. He attributes this to work overload, together with the responsibility of constantly dealing with leadership problems such as interacting with multiple personalities. As a result, he feels that parishioners have noticed his signs of exhaustion, causing them to be hesitant to approach him for the help they require. CF has also resulted in his inability to give of his best in situations requiring — wholesome — responses. While trying to manage his daily workloads, he receives unexpected calls to which his immediate response is to feel overwhelmed and internally cry out for mercy. He has needed to obtain inner strength to continue ministering, in an attempt to serve his congregation. He has done this through recognising the effect that CF has on him; reminding himself that God’s power is best in his weakness; and coping through centring on prayer. He focuses on God living within him, and lives through a continual prayerful act of surrender and
abandonment which includes consciously seeking the physical, mental, emotional and spiritual energy
that he needs from God to serve others.

Participant N has also experienced CF during her ministerial life, which she explained as a deep
tiredness together with physical, emotional and spiritual exhaustion. These periods originated from
insufficient training; an abundance of changes, challenges and criticisms within her work
environment; a lack of support staff which equated to more responsibility per pastor and thus a large
workload; a lack of pastors available to assist her emotional and spiritual needs; as well as a need to
work through the confusion, anger and depression of those whom she is pastoring. This has affected
her ability to wholeheartedly serve her congregation because she began to question her spiritual
purpose, such as why she entered religious life in the first place. She became judgemental of fellow
pastors who were not contributing as equally as she was and who expected to be carried by the
generosity of others, and yet continued to push herself to work harder due to her commitment to her
cause, which resulted in more resentment. She began to feel impatient emotionally, oftentimes feeling
useless and abused by others, and became angry with those who focused only on themselves, which
resulted in a lessening of her desire to serve them. This negatively affected her enthusiasm and
creativity. She suffered from decreased energy levels, and the quality of her sleep was affected
through not entering a state of rest, which contributed to her tiredness and inability to be present with
those asking her for help. Her health has thus been compromised over the years with physical illness.
To overcome these periods, she has attended personal and group therapy sessions; taken sabbatical;
taken the time to process her emotions and tap into her sensitive and caring nature; and withdrawn
from people through taking time to be alone in nature to catch-up with herself, God and her purpose in
life. This allows her to rejuvenate and restore her ailing body and soul.

3.5. NG responses

Two male NG pastors responded this this question. Participant O noted that it is only through the
grace of God that he has not experienced severe CF or emotional e
Xhaustion, despite conducting
counselling sessions for marriages, trauma and grief as well as being responsible for his church’s
hospital and healing ministry. He states that he gains energy from helping people and witnessing how
the Lord changes lives, drawing people closer to Him in the process.

Participant P, on the other hand, has suffered from CF, which manifested itself in a number of ways.
He explained how he literally went into hiding from members of his congregation who needed him
during his time of exhaustion, and would surf the Internet using his computer in his office to escape,
under the pretext that he was busy preparing for sermons. Moreover, during counselling sessions, he
experienced a detached feeling where he would wonder what his congregation members would do if
they knew how he felt in such moments. His family were the innocent victims of his emotional
turmoil because he became unbearably grumpy and aggressive at home, drinking too much at times,
but through grace never becoming violent. Importantly, this state altered when he changed his lifestyle
to include more time to meditate on what God expects of him, and to simply spend time talking with
his family.

4. Conclusion and recommendations

To summarise, despite the fact that our quantitative results indicated that zero to two per cent of
pastors suffer from burnout or STS, our qualitative findings discovered that burnout and STS causes
pastors to be more impatient, critical, irritated, judgemental, aggressive, short-tempered, overwhelmed
and deeply tired. Moreover, such pastors may withdraw emotionally; experience less energy and
creativity yet heightened anger, self-doubt and depression; experience physical illness; consider
suicide; experience poor sleeping patterns; resort to alcohol as a means of coping; and consider quitting the ministry as a career. All of these consequences negatively affect their ability to emotionally and practically serve members of their congregations, for example through regretting harsh words spoken to others, overreacting in insignificant situations, and/or avoiding interactions with others by cancelling counselling sessions. Thus, the participants of the qualitative component of this study highlighted that CF has the capacity to negatively affect pastors psycho-emotionally, to the extent that their ministry in all respects is also negatively affected.

A limitation to this study is that only 16 pastors provided feedback for the qualitative data that was collected; thus, these results cannot be generalised to the wider ministerial population. Qualitative results should in any case be treated with caution owing to the fact that in-depth data provides a glimpse into the feelings and perceptions of smaller samples compared to quantitative research. An additional limitation is that no inferential statistics were conducted within the quantitative component of the study, further preventing the ability to generalise the findings.

Considering recommendations based on the results of this study, Krejcir (2007) draws attention to the fact that pastors must be conscious of, and embrace, all opportunities that Christ provides to them to assist in overcoming the emotional exhaustion symptoms described above, such as through rooting themselves in solid biblical theology and values. He notes that pastors have been called to guard themselves against biblical values, beliefs and mind-sets being eroded, which can only be done when Christ’s purposes and desires are placed above theirs. Along this line, this study’s participants highlighted a number of means by which to avoid or overcome CF, including humbling and surrendering themselves through prayer; relying on God for sustenance; developing strong personal relationships; leading balanced lives physically, emotionally, spiritually and mentally; focusing on the positive effects that their ministries have on the lives of others; and committing to receiving therapy and/or spiritual direction from others.

Such advice is supported by literature. Pastors from Evers and Tomic’s (2003) study suggested that to diminish work pressure and thus burnout, churches should provide more secretarial support and competency training to pastors to assist with organisational and managerial tasks, and parishioners should provide practical support by means of volunteering. Personally, they note that pastors should focus on concentrating their rest and relaxation time.

Hudson and Haas (2012) highlight the sustaining practices that Jesus developed which ensured that He did not burnout while ministering on earth, which included:

- praying;
- worshipping God;
- spending time in fellowship with others;
- maintaining a close group of disciples;
- feeding upon the scriptures;
- spending time in solitude;
- spending time in God’s creation;
- meditating on the value of rest;
- welcoming time spent with children; and
- interacting with individuals not of the same faith as Himself.

We believe that such practices can, and should, be practiced by pastors in today’s society in order to maintain a close relationship with their Saviour, thus preventing and/or overcoming long-term CF. While working in the ministry can be viewed by pastors as a wondrous calling that is joyful and
fulfilling, Krejcir (2007) highlights that pastorally serving others comes with responsibility to place Christ above one’s own desires, since pastors are first and foremost His servants.

Acknowledgements

We wish to thank all pastors who made their church databases available to us, and/or forwarded our questionnaire to their colleagues. Thanks, too, to those pastors who participated in our study, particularly those who took the time to respond qualitatively regarding their personal experiences of CF. Your insights and support were invaluable to this paper.

References

Flow experiences and the well-being of service consumers

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Abstract

Superior service experiences and consumer well-being are two important imperatives as well as significant research and management issues. However, literature indicates the lack of adequate theoretical frameworks that inspire and provide guidance for understanding and developing peak experiences and their well-being consequences in the services sector. Hence, to fill the identified gap, the study employs the flow concept to (a) inform and advance conceptualization and development of peak consumer experiences and (b) provide link peak experiences and consumer well-being. In the first part of the paper, two of the most relevant aspects of the flow construct are addressed, namely core elements of flow experience and overview of various sources from which peak experiences result (e.g., play/art, body/mind). In the second part of the paper, conceptual and managerial implications of flow experiences and consequences for service marketing and management are discussed. The paper concludes with a brief discussion of the implementation challenges, research implications, and flow construct limitations.

\textbf{Keywords: service marketing, peak experiences, flow concept, consumer well-being}

* Corresponding author

1. Introduction

In past decades, experiences have become a central phenomenon of interest and the need for a deeper understanding of it is of key concern for service researchers and managers, where the ultimate goal is a creation of superior customer experience (Jaakkola et al., 2015; Klaus and Maklan, 2012; Verhoef et al., 2009). Since Pine and Gilmore (1998) argued that experiences are a distinctive economic offering, there is a necessity for a clear, concise and substantive definition of what exactly constitute experiences and for an insight into how superior experiences are designed. Pine and Gilmore (1998) were rather implicit in regard to the first issue, suggesting that experiences are —memorable and personal. Regarding the design of experiences they argued that successful experiences encompass the realms of entertainment, education, aesthetics and escapism and that they result from staging, thematising, and provision of positive cues, memorabilia and engagement of senses. Otto and Ritchie (1996) stated that the experiences are —subjective personal reaction and feelings and specified the domain of the experience construct with a set of dimensions (i.e. hedonic, interactive, comfort, safety, simulation and novelty). Holbrook and Hirschman (1982) defined experiential consumption in a broader sense - as a synonymous with the emotional consumption. Due to such diverse conceptualization some researchers pointed out that experience construct is complex, multifaceted and that the use of term customer experience in the literature is often paradoxical (Palmer, 2010). It is therefore not surprising that some authors asserted that consumption experiences are poorly defined construct (Caru and Cova, 2003; Poulsson and Kale, 2004). In order to be more explicit Poulsson and Kale (2004, p.8) define (commercial) experience as —an engaging act of co-creation between a
provider and a consumer wherein the consumer perceives value in the encounter and in the subsequent memory of that encounter.

Caru and Cova, (2003) pointed out two important issues in regard to previous conceptualizations of experiences. One is that consumer experiences should not be equaled nor mixed up with the commercial experiences (i.e. experience of product/service offering). Second, attention is needed to distinctions between ordinary and extraordinary experiences, because important differences exist between them. According to Klaus and Maklan, 2012) peak experiences research challenges the notion of the traditional, „service quality grounded“ thinking and posits that extraordinary experiences are not assessed via the traditional cognitive processes. Accordingly, two streams in the literature can be noted, one focused on the overall assessment of customer experiences and the other focused on peak experiences. The —overall— approach was recently followed by Jaakkola et al. (2015), employing multi-approach and aiming at the integration of various approaches (process-, outcome-, phenomenon-based). As an outcome they identified various dimensions of the service experience concept (collective – individual, customer-led – provider-led, dyadic – systemic, etc.). While these dimensions are relevant for exploratory examinations of customer experiences, there is a question to which extent they are relevant for the extraordinary experiences. Such overall definitions and dimensions of customer experience might namely neglect the specifics of the extraordinary. In similar vein service quality informed approaches might not be suitable for this purpose. This points to the lack of adequate theoretical frameworks and concepts that would provide guidance for the peak experiences understanding and improvement. This is evident in regard to definition and core elements of peak experiences, but also in regard to sources and long-term consequences of peak experiences, relevant for service researchers and practitioners.

Peak and extraordinary experiences are however not the only merited end-state, but also a means to further improvement of consumers’ quality of life (QOL) and well-being. Here the focus is on the subjective QOL, which is understood as a broad term that covers happiness, subjective well-being (SWB) and satisfaction with life (Sirgy, 2001). In their seminal article Arnould and Price (1993) for instance found that extraordinary experiences are related with personal growth, self-renewal and harmony with nature. Accordingly, we assume that in services sector further possibilities exist for provision of happiness and life fulfilment as service outcomes. More recently such service outcomes were pointed out by proponents of so-called transformative services. In terms of well-being outcomes transformative research is interested in collective and individual implications, among which are also various hedonic and eudemonic aspects and customer-service interactions, which contribute to consumers’ and employees’ everyday affective state, emotional health and self-esteem. Transformative services by definition enable a transformation towards individual and collective well-being (Wunderlich et al., 2012). They represent an important topic (next to experiences) in future service research (Anderson et al., 2013). According to their proponents, such transformative potential is evident at various services like financial, energy, social and health services. For a realization of a transformative research agenda their proponents adopted a macro approach to services (i.e. study of services as an ecosystem), focused on societal and institutional levels. However, such general and macro-focused models and concepts need to be complemented with more operative micro-models and concepts that would inform researchers and practitioners about the organization-level possibilities for improvement of happiness and well-being.

In line with these starting points we define the purpose and key goals of this paper. In order to fill the identified gaps this paper employs the flow concept in order to (a) inform and advance conceptualization and development of peak consumer experiences and (b) provide a link between peak experiences and consumer happiness and well-being. Flow concept namely seems suitable for
this purpose as it represents a link between both imperatives (i.e. peak experiences and consumer well-being). To date, the flow construct in the services sector was explored mainly in tourism and leisure studies. Some of these address peak/flow experiences in adventure tourism (Wu and Liang, 2011; Arnould and Price (1993), while other examined it in online contexts, where flow and its marketing implications were more comprehensively explored (Novak et al., 2000; Shoham, 2004; Ding et al., 2009; Hoffman and Novak, 2009). Following paper purpose and general lack of discussion of the flow concept in the services field, paper follows several key goals: (1) it explains the origins and assumptions of the flow concept; (2) defines the flow experiences and their components and clarify the relation with the life-satisfaction; (3) discuss various conditions and sources of peak experiences. Based on comprehensive explanation of the flow concept in the second part final (4) key goal is pursued, namely the provision conceptual implications for the service marketing and management field. Flow-informed implications for advanced understanding and design of peak and life-improving services are provided in regard to the definition and purpose of services, expectations and role of customers, core service model, the service environment and the role of employees. The paper concludes with the discussion of the managerial and research implications and limitations.

2. Flow experiences: origins, elements and sources

The flow concept, which exemplifies and explains the _moments of pure happiness_, fits into the young branch of positive psychology. It aims to understand the positive, creative and fulfilling elements of human behavior (Compton, 2005; Snyder et al., 2011). One of the basic tenets of positive psychology is distinction between hedonic (satisficing, short-term, restorative, homeostatic) and eudemonic (potential fulfilling, long-term) well-being. As such it is mostly concerned with the relation between the two, and especially with the enhancement of the eudemonic, life satisfying aspects and mechanisms, which are fulfilling and related with the personal growth and the _realization of true self_. For this sake, positive psychology explores various life activities and domains like leisure, personal relationships, health, sport and recreation, but also spirituality, community, culture, work and institutions. Among the service domains, leisure, more precisely tourism, was recently examined from this perspective (see e.g. Filep and Pierce, 2014). Positive psychology address a broad spectrum of activities in which people enjoy, which can provide well-being and asks —why do people engage in such activities? Besides fun, more complex and deep motives found include relief from stress, revitalization, feeling of autonomy, enjoyment in social life, escape from routine and alike (Compton, 2005).

Within positive psychology flow concepts play a central role, where Csikzentmihalyi (1975; 1988, 1990, 1997, 2000) who extensively studied it and its role in happiness over several decades, is widely acknowledged as the founder of the flow construct. Csikzentmihalyi (1990) asserts that happiness is an elusive pursuit and appear as the unintended side-effect of personal dedication to a —course greater than oneself. According to him, happiness is a condition that one must be prepared for, cultivated and be defended privately by each person. As a (indirect) way towards happiness he suggests _a control over contents of our consciousness_, which is characterized by total focus and immersion with the task/activity - being in _flow_ with this activity. Such most positive experiences then lead to a sense of an overall life satisfaction. The basic premise of the flow theory posits that contemporary people are prone to the —psychic entropy, which is characterized by _wandering_ mind, confusion, negative emotion, lack of focus and the doubts in the self. In flow as the opposite state, people feel being in top form and/or in total control. There is no disorder and threat, consciousness becomes calm, clean, ecstatic and fulfilled.
Accordingly, to find happiness and improve life one must thus improve the quality of experience. Csikzentmihalyi (1990, p.4) defines flow as—the state in which people are so involved in an activity that nothing else seems to matter. Based on extensive empirical studies over decades Csíkszentmihályi and his colleagues found that such enjoyable experiences are universal across cultures and respondent groups and put forwards several key components of them, which are known as flow components. These are: (1) challenging activity that requires skills, (2) concentration to the task (3) clear goals, (4) immediate feedback, (5) no worries and troubling thoughts, (6) sense of control, (7) loss of self-consciousness and (8) altered/distorted sense of time. The final and key element of the peak experiences is its autotelic nature. As such it is self-contained, done for the sake of itself. Doing autotelic activity is the reward in itself and no future (exotelic) benefits are expected (hence happiness can arise, as the unintended long-term side-effect).

Besides key flow components, which are informative in regard to design of peak experiences, it is important to note some additional characteristics and conditions of the flow. Flow is distinctive type of experience, which is the opposite of the apathy, boredom and the anxiousness (Csikzentmihalyi, 1997). Flow depends on two broad factors, namely individual characteristics (i.e. personality, abilities and efforts) and on the activity/task characteristics. In regard to the individual factors Csikzentmihalyi (1990) emphasize that peak experiences result from intense and unreserved engagement. They come when people work hard, where their body and mind is stretched to the limits, what might in fact be unpleasant during the process. Besides engagement and efforts flow also require creativity and an autotelic personality. Autotelic personality represents a stable set of traits (dispositions), especially achievement motives and self-regulation - found at persons seeking for flow and challenges (Bauman, 2014). Because of that, some authors point out the motivational and the cognitive role of flow (Huang, 2006). Flow therefore requires certain physical, mental and sensory skills, which are in turn improved as the result of flow experiences. Peak experiences are thus not simply provided, but are made happen, by autotelic persons, autotelic activities or both. In this manner even the most humdrum activities can become the enjoyable experience, what bears important implications for the experience management. Of key importance here is the notion that flow experiences are grounded on a structured activity, which is designed so that optimal experience is easier to achieve. Such activities are characterized by the flow elements described above in order to facilitate concentration and involvement. Csikzentmihalyi (1990) emphasize that for this purpose it is also important that flow activity set participant apart from everyday existence and focus them on peculiar reality of the task at hand. In this manner flow activities provides a sense of discovery, a creative feeling of transporting people into the new reality and/or to higher levels of performance. Such activities are play, art, sports and alike, because they are naturally constructed as autotelic. Understanding of the required structural elements and expected experience outcomes is of key importance for design and management of service activities in order to build in or enhance the quality of consumer experience. Before we address these implications some additional _conditions and sources_' of flow (see figure 1) are important to point out.
Flow experiences namely also depend on culture, family and life-style, which all refer to social context, which can either foster or hinder the pursuit of peak experiences and happiness (Compton, 2005). In this respect social aspects of service experiences seem crucially important yet neglected (Caru and Cova, 2015). Another source of flow is body, where a Csíkszentmihályi (1990) state that everything the body can do, is potentially enjoyable. Accordingly, even the simplest movements can produce flow, what is of relevance for the sport, fitness, yoga, martial arts and similar service domains. Senses and tasting is another such domain, where instead of provision of —meals! services directed to provision of —joy of cooking! might be such offering or experience enhancement. Perhaps the most neglected source of flow experiences from standpoint of service industries is the human mind. Some of the most exhilarating experiences are generated inside the mind, stimulated by thinking sense-making, playing mental, word, conceptual and strategic games like chess. As the final source, which is also of relevance for a service sector Csikzentmihalyi (1990) points out flow at work and design of autotelic jobs. In an —upward spirall manner flow at work in turn has been found to have positive influences for the employees and organizations (Salanova et al., 2006). The richness and breadth of flow related activities and aspects are beyond the scope of such introductory overview and are extensively discussed in literature about finding of flow (see e.g. Csiikzentmihalyi, 1997). To grasp the essence and the breadth of flow, two most relevant aspects of flow are summarized in the figure 1. These are core elements of flow - as the subjective experience state (see Nakamura and Csikzentmihalyi, 2002) and the overview of various sources from which such subjective states result. Both aspects bear important implications for the services field in terms of conceptual, but also research and managerial implications.

3. Flow-informed service implications and limitations

In this part, the flow concept is used as the conceptual lens though which some central elements and constructs of services management are re-considered. These elements are the definition of services and their purpose, expectations and role of customers, core services model, services environment and the role of employees. They are apprehended in accordance with a standard service management and marketing textbooks (e.g. Lovelock and Wirtz, 2007; Wilson et al., 2012). Initially, it is interesting to note that services are historically and etymologically conceived as the unpleasant and unwanted work, hence done by —servants for their masters! (Lovelock, 2007, p. 12). Flow, on the contrary, is focused on activities people like to do and enjoy in, because they are autotelic and provide fun, happiness and long-term satisfaction. Further, services are traditionally focused on activities, performances and solutions – consumed at the time of production. As such, they are assumed to provide short-term value and benefits and are focused on isolated encounters, rather than on long-term aspects and life-
quality improvements, which results from flow. For this sake it is advised that services definition rethink and incorporates such transformative and well-being purpose in the future. In addition to conventional forms and types of provided value such as convenience and comfort, services might incorporate different notions and types of value, such —as contribution to personal goals (see Woodruff, 1997) or various types of value such as playfulness, aesthetics, spirituality, etc. (see Holbrook, 1999).

These implications are tightly related with the service expectations and role of customers. Services literature acknowledges that customers are highly involved into process of service production and delivery. Recently, strong emphasis was put on customers’ co-creation of experiences (Jaakkola et al., 2015; Ponsignon et al., 2015, Verleye, 2015), which is compatible with the flow implications. The flow concept namely suggests that consumers’ peak experiences and happiness depends primary upon themselves and their dedicated and focused efforts, upon hard work of body and/or mind and upon use of needed skills for coping with the challenges (Csikzentmihalyi, 1990). In this manner peak experiences ultimately lead to improvements in the quality of life (Csikzentmihalyi, 1997). This is in line with the notion of service experience proposed by McColl-Kennedy et al. (2015), which in addition emphasizes the —collective, collaborative, evolving and dynamic— nature of service experience. Given that experiences are the emotional state their management is possible mostly via services setting factors (Brunner-Sperdin, 2012). Most positive experiences can therefore be primarily enabled, assisted and encouraged so that customers —make them happen— themselves. In this manner, flow suggests that customers not only co-create the fulfilling experience, but primarily self-create it —where the services organization can be only of assistance. In terms of meal/cooking example described above, flow concept for example suggests that people enjoy not only in provision and consumption of a good meal, but also in the process of cooking as the ‘autotelic’ activity. The relevant service question is than how service provider can assist customers during this activity so that cooking will become flow activity for them —utilizing all potentially relevant core elements and sources of flow depicted in figure 1. Service providers might for instance add and facilitate various playful, competitive and social aspects to enhance cooking experiences. Social elements might additionally enhance the experience since —shared experience is doubled experience (see Raghunathan and Corfman, 2006; Walker, 2010).

The next issue of interest is flow implications in regard to the service concept/model. The service concept typically consists of a core product (i.e. problem solving benefits for customers) and supplementary services (Lovelock and Wirtz, 2007). Together these elements are called the flower of service and represent a holistic view on services as a complete offering. From perspective of flow some additional core and facilitating elements might be identified and added. They are informed by core flow elements and sources depicted in the figure 1, which itself represent a particular, peak experience flower. Its elements overlap with the traditional flower, yet they might be conceived as the additional elements of the service experience —bucket. These elements suggest that service organizations need to aim at exceeding of customers’ expectations, by provision of novel experiences, by stimulating customer senses and minds, by higher levels of customer engagement and performances (Csikzentmihalyi, 1990). This suggests transformation from homeostatic service models to more dynamic models, conceived as progressive spiral of teasing, surprising and exceeding consumer expectations. Such models will not be concerned only with risks encountered by customers, but also with the avoidance of other types of (unwanted!) experiences, such as apathy and boredom, which are neglected in traditional service textbooks and service models.

Another domain where flow theory provides relevant implications is service context or servicescape. The elements of servicescape (ambient conditions, space elements, signs and artifacts) are conceived
as environmental stimuli, which stimulate emotional and behavioural responses, including arousal and un/pleasurable affects (Lovelock and Wirtz, 2007). Servicescape elements are in fact most closely related with the customer experiences in the standard textbooks, where some of them emphasize that clue management can be used for experience engineering (Pine and Gilmore, 1998; Wilson et al., 2012). Rosenbaum and Massiah (2011) and Akaka et al. (2015) however suggest that such view on servicescape is too narrow as servicescape comprises not only objective stimuli but also subjective, social, symbolic, cultural and natural stimuli, which all influence customers and social interactions. From standpoint of flow treatment of contextual elements therefore seems fragmented and implies the use of other approaches and models than stimulus-response and clues management. Of prime interest here is the notion that during flow activities people are transported into alternate reality and forget everything else around them (Csikzentmihalyi, 1990). While some servicescape elements such as music can assist in experience of such (peculiar, alternate) sense of reality, there are other tools and elements of relevance which can additionally and better serve this purpose and integrate these elements into more coherent holistic whole. Caru and Cova (2007) point out that immersion in the context is the mean by which consumers access an experiences and that a good, immersive context is enclavized (with boundaries between daily lives and world of enchantment), secured (in order to remove daily live concerns) and thematised (a symbolic packaging of the context which ascribe meaning to the act of consumption). These ideas can be fruitfully applied in various service organizations, not only in amusement parks, restaurants and retail stores, where they are already widely applied (Pine and Gilmore, 1999). Another, similar approach is storytelling which has also been found important for invoking the feelings of alternate realities and enhancement of customer experiences (Mossberg, 2008). Mossberg (2007) use the term experiencescape to describe the key factors (people, physical, offerings and theme/story) which play a major role in influencing (tourist) experiences.

The final service element addressed are employees. They are of key importance as they represent service organization and are the part of the product. At the same time front-line employees serve as boundary spanners, because of what they encounter various sources of conflict and stress (Lovelock and Wirtz, 2007). While it is obvious and acknowledged that employees can _make or spoil_ the customer experience (Jaakkola et al., 2015), the most attention in service literature is often devoted to _failure prevention_, rather than to develop skills, motivations and role models for peak experience facilitation. From the perspective of flow theory the challenge is thus how employees will act as peak experience enablers and facilitators. This requires that employees play a different role, namely role of experience —brokersl (see Weiler and Walker, 2014) or personal coaches (Biswas-Diener, 2009) and facilitate customer engagement, flow experiences and the outcomes discussed. Service marketing and management textbooks already suggest the full spectrum of human resource management activities for selection, training, motivation, empowerment, attitude management, team management and internal marketing. Flow concept however suggests that the ultimate and most effective tool for engagement and enjoyment of employees is the work itself (Csikzentmihalyi, 1990, 1997; Compton, 2005). This implies the development of autotelic service jobs, which are designed so that they provide flow experiences to employees, which will in turn act as flow providers and transfer such experiences to customers. Such transfer was found viable by means of emotional contagion (Wilson, 2010; Bakker, 2005) and suggests further themes and possibilities of experience enhancement. To sum up the discussed and elaborated key implications they are outlined in Table 1.
Table 1. Key service elements and flow-informed service implications.

<table>
<thead>
<tr>
<th>Services element</th>
<th>Traditional assumptions and conceptualization</th>
<th>Flow-informed emphasis and implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services definition and purpose</td>
<td>Provision of encounter based solutions, value and quality control</td>
<td>Life-quality improvement; autotelic activities for intrinsic satisfaction and eudemonic well-being</td>
</tr>
<tr>
<td>Expectations and role of customer</td>
<td>Risk averse, convenience seeking service co-creator</td>
<td>Engagement, challenge, skills and performance; focused attention and —hard work</td>
</tr>
<tr>
<td>Core service model</td>
<td>Core solution + supplementary elements</td>
<td>Peak experience elements (goals, feedback) + sources (e.g. play, creativity, body, mind)</td>
</tr>
<tr>
<td>Servicescape elements and design</td>
<td>Distinctive stimuli, providing positive emotional and behavioural reactions</td>
<td>Social, symbolic, natural elements, enclavized, thematised, story-integrated</td>
</tr>
<tr>
<td>Employee role and management</td>
<td>Organization/service representative, boundary spanners; conflict, stress, failure prevention</td>
<td>Experience brokers and personal coaches, autotelic service jobs, emotional contagion/transfer</td>
</tr>
</tbody>
</table>

4. Discussion, research implications and limitations

Discussion of the flow construct inspires and informs researchers and managers about relevant implications for the services theory and experience management, summarized in Table 1. Discussed implications are in accordance with recent conceptual developments such as dynamic conceptualization of experiences (McColl-Kennedy et al., 2015), and various factors of service experiences identified, including integrative, systemic, imaginary, contextual collective and future oriented aspects (Jaakkola, 2015; Rosenbaum and Messiah, 2011). In this manner, flow may play a role of broad and integrative theoretical framework which connects diverse service elements and concepts and suggest how to apply them for facilitation of peak experiences. Flow also highlights an important research gap, the topic of consumers’ well-being, which are currently underrepresented in standard text books about services marketing and management. Here, the services literature can learn and follow some of its sub-domains like tourism, where the quality of life issue is comprehensively discussed and explored (see e.g. Uysal et al., 2012). This implies that general and overall services theory need to be more attentive to sub-branches such as transformative services, which are more specialized and developed in this respect, but also to other relevant disciplines and theories such as those of positive psychology (Compton, 2005; Snyder et al., 2011).

Conceptual developments and advances discussed in finally need to be implemented in practice and incorporated into research projects. Although flow informs us about the nature, elements and sources of peak experiences it is originally not conceived as the managerial concept. This is perhaps the prime reason of why it has been under-researched and especially under-applied in the commercial sector. Its implication in the services practice thus might be challenging. One way of progress is (again) learning from the disciplines and practices where peak experiences are better understood, successfully enabled and where consumers’ well-being is of prime focus. Given that the flow construct was comprehensively studied in the online environments (Novak et al., 2000; Shoham, 2004; Hoffman and Novak, 2009; Ding et al., 2010) a knowledge transfer from virtual to real contexts is warranted. In terms of learning from practice existing successful examples of relevance are also the novel, hybrid, playful, mind-challenging leisure activities such as Escape rooms, which represent niche-like experience domain (see Nicholson, 2015). Subjective well-being, on the other hand might be subject of consultation and coaching services which encompass medical, non-clinical and executive coaching (Biswas-Diener, 2009; Kaufman, 2006).
Another way of transferring flow implications into practice is further operationalization of marketing activities, where target segment definition and positioning/promotion issues are of prime relevance. While extremely rewarding, challenges and hard work implied by the flow theory are surely not universally warranted by all customer segments. This suggests that managers also need to rethink one of the basic service premises, namely that customers (only) want comfort and convenience. Brown (2001) suggests that customers somehow expect and want to be ‘teased, tantalised and tormented’. This is in line with the flow concept, which implies that other types of experiences, such as boredom and apathy, need to be actively prevented and eliminated. In this manner, some peak experience elements and outcomes (e.g. surprise, excitement, uncertainty, and thrill) seem neglected and universally relevant for service as they might serve to alleviate the problem of ‘perfectly standardized’ - yet so boring services experiences.

Another relevant challenge, which also points to the limitations of flow construct, is the question of determinants and consequences of peak experiences. In terms of consequences relevant studies support the assumption that peak experiences influences loyalty (Wu and Liang, 2012; Lipscombe, 1999). More conclusive research is needed to affirm its impact on word-of-mouth and other consequences in a services context. In an online context, additional relevant outcomes were found of interest, such as exploratory behaviour (Hoffman and Novak, 2009). On the side of antecedents, some additional determinants of flow experiences also need to be addressed, such as service quality and processes (Ding et al., 2010), but also novelty, playfulness and telepresence (Hoffman and Novak, 2009; Wu and Liang, 2011). Another relevant research question is the distinction and relationship of the flow construct with the similar constructs like involvement (see Huang, 2006). This raises the question of the relevant conceptual determinants of peak experience, and is further complicated with the fact that an important role in flow experiences is attributed to the autotelic personality (Bauman, 2014) and other ‘unmanageable’ factors, such as culture. The relative impact of each of these general determinants (task, personality and context) to peak experiences in the commercial domain is virtually unknown, what is important research topic for the future. Finally, an important research topic is also the assumed impact of peak experiences on happiness and quality of life, which has been documented yet not universally supported (Compton, 2005) and warrant future research. It points to the most valuable flow implication, namely the idea that peak experiences need to be primarily understood as a mean to a greater good – to the consumer life quality and well-being.

References


Does servitization management fit for SMEs? : An explorative study in Malaysian health products and cosmetics manufacturer

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Abstract

Today, manufacturers are adapting and practicing servitization, which is the transition process of adding service concepts and activities into product-based businesses by reconstructing their business model to differentiate their value propositions. This strategy aims to enhance customer satisfaction.

Small and Medium-sized Enterprises (SMEs) in the Malaysian manufacturing sectors have been normally performing as traditional goods producers or suppliers of other company’s requirements. To improve their market competitiveness under changes employed by the ASEAN Economic Community (AEC), SMEs need to realize the challenge of becoming more service-oriented and deploying strategies to achieve breakthroughs.

In this study, we first identify the current situation of Malaysian servitization and then find the challenges of implementing servitization in SMEs in terms of organizational climate. Finally, we discuss of the means of breaking through the challenges. We conduct an explorative questionnaire survey to SMEs in health products and cosmetics. These SMEs are found in Kedah state, Malaysia. The questions covered knowledge-focused servitization management concept, which aims to organize values required by customers, knowledge needed for co-creation, location of the companies that need to change, and ideal partners.

The findings of this study will help SMEs generate knowledge and service-based innovation concepts, thereby promoting the ability of SMEs to adopt servitization management.

Keywords: servitization, service-based value, knowledge creation, SME, manufacturing company

1. Introduction

Today service-based value creation is more critical issues for organizational sustainability. The world is becoming more oriented toward services; the growth of services is one of the key trends witnessed in recent years (Belal, Shirahada, and Kosaka, p.187, 2012). The national gross domestic product (GDP) of developed economy’s majority is driven by the service sector too (Elche and González, 2008). Service offerings through provider has contributed to the main source of competitive advantage in business (Schumpeter, 1934), thereby leads to the highest economic growth. In this circumstance pure manufacturing was in under massive pressure (Neely, 2007). Thus, they are practicing servitization through reconstructing their business model (Shirahada, Belal, 2015) to move up value chain perspective. While servitization is a transition process of adding service concepts into product-based business in manufacturing companies (Belal, Shirahada, and Kosaka, 2012).
However, the servitization exercise is happening mainly in developed economies and in heavy manufacturing companies. They have already started to sustain themselves on the basis of value delivered by shifting their market share from manufacturing to more product service-oriented systems (Baines et al., 2007; Neely, 2008).

Nevertheless, still there is a question that, is servitization only for heavy manufacturers? What about Small and Medium Enterprises (SMEs) and what about its practice in developing economy? Because, operating servitization of business and managing it successfully is the bigger challenge (Martinez et al., 2010) in terms of creating new business. Because, in the aim of adapting servitization, the technology based company should resoluteness some critical internal and external issues. For example, it requires redesign of the organizational philosophy and needs to improve performing capacity (Werner and Ulaga, 2008) through successful dealing the interface of business, technology, and people (Daim, Jetter, and Demirkan, 2010). Wise and Baumgartner (1999), Oliva and Kallenberg (2003), and Weeks (2010) stated that, to adapt a successful servitization within business, organizations are likely to change their strategies, operations and value chain, technologies, people, and expertise supporting cultural shifts in the organizational blueprint, and system integration competences (Belal et al., 2012). The transformation from a product-based business to customer focused-service-based business is a time and resource-intensive process that required committed leadership-people and a significant organization wide culture shift (Brown, Gustafsson, and Witell, 2011).

In addition, the servitization as a transition process needs to innovate service in the way of creating knowledge that includes organizational knowledge management (internal and external issue), human resources education (internal issue), and inter-organizational relationships building for knowledge co-creation with stakeholders (external issue). Therefore, the companies are required to construct a _system_ from the viewpoints of knowledge management, employees’ skill development and corporate collaboration that enables to manage new knowledge and create service as value according to market requirements.

There are several studies on servitization, those are likely based on heavy manufacturing industry. There are insufficient studies above on SMEs and developing economy.

This study is conducted in the context of developing country such as Malaysia and focused on service sector of its SMEs which has been receiving a great deal of responsiveness from the government. This works firstly aims to recognize the current situation of Malaysian servitization and secondly find the challenges of becoming servitization in SMEs in terms of organizational climate. Finally we discuss about the way of breakthrough the challenges. We conduct an explorative questionnaire survey to cosmetics and health-care product producer related SME in Kedah state, Malaysia by using knowledge-focused servitization management framework (Belal, Shirahada, 2015) which aims to organize what value is required by customers, what knowledge needs to co-creation for it, where the companies need to change, and who will be an ideal partner. In the final section concludes the paper with a summary.

2. Servitization in manufacturing industry

It is agreed that, customers want a value creation process rather than only a typical product, i.e. transportation, not a vehicle itself (Powar et al., 2009). Value is co-created through service in terms of the mutual effort of firms, employees, customers, stakeholders, government agencies, and other entities related to any given exchange (Vargo, Maglio, and Akaka, 2008; Vargo and Lusch, 2008). The influence of service activities as a process to value creation can connect firms, employees,
customers, stakeholders, government agencies, and other entities all together. Which can address market, economic, and social challenges and same time can find the way of breakthrough of those changes as solution. Hence, the service research as well as servitization (Vandermerwe and Rada, 1988) has become an important study area in the area business science and social science field.

Traditional manufacturers usually offer after-sales-service for protecting their products rather than as the way of value co-creation process for gaining competitive strategy (Belal, Shirahada, Kosaka, 2012). Servitization strategy can help to differentiate products through product-based services (Visnjic and Van Looy, 2013), 2013, Belal, Shirahada Kosaka, 2012; 2013) and for environmental benefits (Mont, 2004) as well. Thereby, company can provide continuing value, increase revenue, and compete on cost. Though it is a unique strategy and difficult to easily recognized for typical manufacturing company (Teece, 1997), but modern corporations were increasingly offering fuller market packages or bundles of customer-focused combinations of goods, services, support, self-service, and knowledge (Vandermerwe and Rada, 1988) to add value on their core corporate offerings. Oliva and Kallenber (2003) also stated regarding this change, in which a manufacturing firm transfers itself from recognizing services as add-ons to its physical goods towards viewing goods as add-ons to their core services. After realizing the benefits of servitization, developed economy’s manufacturing companies are changing in the relationship between the customer and the provider to create mutual value (Uchihira et al, 2007; Neely, 2008) to practice servitization in terms of move towards customer centrity from physical-goods centrity (Baines et al., 2007; Belal et al., 2013). For example, Japan based world high respected monitor maker company signifying itself as a servitized farm by practicing ‘knowledge focused servitization management model‘ (Belal, 2015) and the mentioned model is one of the verified structure in servitization field. Additionally, more examples are available also like; Ericsson and Rolls-Royce. Ericsson is Sweden based world’s leading mobile network supplier, focused on its traditional products and services, i.e., mobile handsets, subsystems products, mobile systems, mobile switchers, operating systems, and customer databases until 1995. However in 2000, they offered solutions and design, built and operated mobile phone networks, acted as suppliers of complete mobile systems, and also offered business consulting for sharing knowledge and feedback for partners that indicated it was an integrated solution creator and a provider.

Rolls-Royce is a power systems company. In the past, the company only used to offer aircraft engines but today they deal beneficial services within their products to customers. Customers can use Rolls-Royce’s engines in the way of pay-by-hours or aviation miles covered scheme. In addition, the company ensures extremely dependable services for customers and creates a platform for generating customers’ business without investing mammoth capital expenses (Rakesh and Padmakumar, 2014). By adapting service-based business view with its core products the company has remarkable change in revenues and market share.

3. Servitization practice in Malaysia

3.1. Current situation of Malaysian servitization

Since 1980s Malaysian manufacturing industry has been outstanding development and it contributed nearly 80 percent of the Malaysian export (H’ng Paik San, Retrieved May 5, 2016) which made it as export-oriented industrial economy (Department of Statistics, Malaysia 2012). According to a World Bank report from 2012, the Malaysian manufacturing industry has also contributed 26.11% to the country’s total GDP for the year 0f 2012. In addition, Malaysia as 25 out of 144 countries based on production process sophistication according to 2012-2013 World Economic Forum Global Competitiveness Report. The manufacturing sector of Malaysia has noted a strong growth sector in
the second quarter of 2014 in a scale of the sales value which is 2.5 % (RM1.3 billion) to record RM 54.3 billion (Hooi, 2016).

However, Malaysia has targeted the services sector as its next engine of growth based on stylized facts namely, that developed economies are services-led (Jesus, 2015, pp.339). Hence, Malaysia wants to achieve a sustainable service-based economy by the year 2020 and with Malaysia moving steadily towards a diversified service-based economy, the next wave of business and investment opportunities is likely to be in high-value manufacturing. Nevertheless, unlike but true that, the manufacturing area of Malaysia is still far from the mentioned objective (Idris Jala, reported Business Circle on14 May 2014). Because, they have own difficulties (e.g., typical manufacturer as a traditional goods producer, Idris Jala, 2014) that faces in compared with developed countries like the United States and Japan. They also have realized that due to macro changes including mega trends, such as demographics and economic growth, are affecting in their business performances both in inside (i.e., workforce and business partners benefits) outside (i.e., consumers expectations, better engagement and knowledge sharing of consumers with workforce and service provider, quality of life). This has created a situation in which Malaysian manufacturer are now under a massive pressure.

Idris Jala (2014) believes that the country needs to focus on the performance changing of manufacturing sector to make the country’s growth more sustainable. Accordingly, manufacturers need to confirm that it not only has to be good at what it does, it also must be innovate and should ensure to rapidly respond to changes in this environment (Greg Mills, 2013). Malaysian manufacturers should think to shift organizational focus not only customary servitization vision (i.e., customer focused) but also to workforce, business partners, and consumers’ benefits or well-being oriented by means of making meaningful connections with recipients to share and achieve knowledge or information (as generally consumers do not want to share their personal information or knowledge willingly with service provider). Thereby, the company can move up to the complete service-based value chain perspectives (Neely, 2007; Belal et al., 2012).

3.2 Service concept in Malaysian SMEs

SMEs are defined in Malaysia basis on annual sales turnover and employees (Hashim and Abdullah, 2000; SEMCORP, 2013). It is mainly categorized in three sectors such as manufacturing and services and other sectors (Hashim, 2000). According to Small and Medium Enterprises Corporation Malaysia (SMECORP, 2013; Malaysia's SME statistics, and e-commerce readiness, 2013 ), enterprises that is with 50-200 full time employees are considered as medium, 5-75 are considered as small and less than 5 are considered as micro enterprises as shown in table 1.

Table 1. SMEs definition based on size.

<table>
<thead>
<tr>
<th>Category</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Sales turnover of less than RM 300,000 Or Employees of less than 5</td>
<td>Sales turnover of less than RM 300,000 to RM 15 mil Or Employees from 5 to less than 75</td>
<td>Sales turnover of less than RM 15 mil to not exceeding RM 50 mil Or Employees from 75 to not exceeding 200</td>
</tr>
<tr>
<td>Services and other sectors</td>
<td>Sales turnover of less than RM 300,000 Or Employees of less than 5</td>
<td>Sales turnover of less than RM 300,000 to RM 3 mil Or Employees from 5 to less than 30</td>
<td>Sales turnover of less than RM 3 mil to not exceeding RM 20 mil Or Employees from 30 to not exceeding 75</td>
</tr>
</tbody>
</table>

Source: Malaysia's SME statistics, and e-commerce readiness
However, due to globalization, price inflation, high labor cost, raw materials availability, structural shifts in the economy the foreign investors are narrow-downing their business from Malaysia as well as Malaysia itself also changing its business trends to represent SMEs is one of the economic stability's driving engine. Malaysian government has made a vision to shift its economy industry-based to a knowledge-based economy (Ong et al., 2010), while, in the Malaysian economy, the role of SMEs is considered as the backbone of the economy (Radam et al., 2008). SMEs seeking to seize new opportunities in order to maintain a competitive advantage, improve the ability to develop new products and improve innovation in the core of value creation (Raymond & St-Pierre, 2010). Therefore, in 2009, National SME Development Council (NSDC) decided to appoint a single dedicated agency to formulate overall policies and strategies for SMEs and to coordinate programs across all related Ministries and Agencies which known as the Small and Medium Enterprises Corporation Malaysia (SME Corp Malaysia) for advisory services.

Malaysia has recognized that, innovate service and practice service concept to change industrial performance is one of main drivers that contribute to value creation, economic growth and social welfare. To translate in this concept the country mainly focusing on SMEs because of the critical influence of these industries on GDPs (Zuraida, Norlena, Shahimi, 2015). This influence generates great potential for national economic growth and business sustainability. Furthermore, contribution of SMEs in services can create positive impression in improving innovation, productivity, gaining competitive advantages and promotes healthy competition within the organization, thereby increase stakeholders value (Gustafsson & Johnson, 2003). Nevertheless, the value creation by adding services on SMEs activities still are in perception position. Because of their organizational ability to offer products and services as a package (Belal, Shirahda, Kosaka, 2013) in line with market requirements (Zuraida, Norlena, Shahimi, 2015). In the context of manufacturing, small companies are generally more innovative in typical product but less extreme in research and development (R&D) rather than large companies (Fuller & Matzler, 2007). Thus, it is arguable that, in order to generate and offer service-based value to markets as well as society, the company needs to redesign their business blueprints, model, recognizing customer values including with integration-utilization of the resources or knowledge.

4. Case study on Penawar Industries Ltd.

4.1. Initial state

Penawar Industries Sdn Bhd has been operating since 1992 and had registered in year of 1996 as a Kedah-based SME. It is known as the pioneer manufacturer and distributor of health products, traditional medicines using herbal and sea cucumber (gamat) active ingredients in Malaysia with the name of ROJAM brand. In addition, the company makes and sells cosmetic products also under the same brand name. Beside of producing and marketing of the herb product and cosmetics it is also functioning as the planner to strategize more opportunities for the company and consumers as well. Currently Penawar Industry is selling their products in a variety of retail stores almost all over in the country, the company sells directly in Langkawi and the revenue from that store is the significant according to the statement from company’s top management.

Until 2001 the company has performed well in business but after that the annual sales has started to decrease, it is about 5% annually. Same time it also has started to lose its market and competitiveness. They have realized that it is happening due to easily penetration of the similar products by other competitors, to win over this competition successfully, so far, no effective innovations over competitive service related were incorporated by Penawar Industry, only typical product manufacturing, selling vision and so on.
After realizing those mentioned circumstances they would like to extend their business line in the perspective services marketing. Nevertheless, they are facing some difficulties to generate service activity on their core business stated by top level management of Penawar Industry. Even the general manager of Penawar Industry’s expressed that, this kind of concept is truly new for them and they don’t know what kind of resources, knowledge, organizational change, or people is needed for it. Therefore, we investigated regarding this company’s ability to transform itself as pure goods oriented to service oriented one.

4.2. Procedure of data collection

The data has collected through interview, observation, and documentation of the company. The 1st term data from interviewees with the owner and general manager of the company as shown as table 2. In addition, interviews have also been held with top level management and some of the key employees of the company in order to gather further and relevant information. We recorded interviews and then it transformed as a feedback of an interviews script.

In the interview session we asked to the company 20 business related questions and all were open integrations. The aim of the questionnaire was to find the challenges of becoming servitization in SMEs in terms of organizational climate and what are the ways of breakthrough the challenges. This questionnaire involves with six parts. The first one is include about company’s general overview and its business generation with customer. The second part is more about organizational structure. The third part is about the understanding and practicing of service oriented view in company’s business. The fourth part is regarding challenges as well as limitations of the company thereby it is facing difficulties to meet its market and consumers demand. The fifth part is discussed about company’s intra organizational relationship, recognizing about competitors, and its market share, and the last one is about the building as well as restructuring company’s business model that can drive organization in service-based solution providing business.

Table 2. Feedback questionnaire.

<table>
<thead>
<tr>
<th>About General Overview and Business Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Could you please tell us about your business history from the perspective of the transition of core products and activities in Penawar Industry?</td>
</tr>
<tr>
<td>[2] What is Penawar Industry’s business vision and philosophy?</td>
</tr>
<tr>
<td>[3] From the historical viewpoint who is your customer? Is Penawar Industry making continuous connection with its customers? If yes, then how?</td>
</tr>
<tr>
<td>[4] What is a main channel of your products to your customers?</td>
</tr>
<tr>
<td>[5] Could you kindly tell us what kind of personnel are available in your organization? [Marketing people, Engineers, Technicians etc.]</td>
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</tbody>
</table>

<table>
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<tr>
<th>About Organizational Structure</th>
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<tbody>
<tr>
<td>[7] How you are taking decision for any further action of your company? [e.g., doing pre-discussion, taking employees’ opinions, surveying market etc.]</td>
</tr>
<tr>
<td>[8] Could you share with us regarding extra benefits for its employees that is providing by Penawar Industry?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>About Service Oriented View and its Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>[9] Is Penawar Industry practicing service concept or service innovation view for value creation?</td>
</tr>
<tr>
<td>[10] Is there any activity for service value creation on Penwar Industry’s products or within its customers? [e.g., make knowledgeable customer]</td>
</tr>
<tr>
<td>[11] Please explain to us about any step to improve your employees’ performance as well as knowledge co-creation phases among employees, customers, and partners? [e.g., training, consultation, idea sharing seminar etc.]</td>
</tr>
<tr>
<td>[12] Are you thinking to innovate service or products? If yes, then what kind of service or product and what necessary resources are needed for it? [e.g., Technology, finance, HR skill, knowledge etc.].</td>
</tr>
</tbody>
</table>

| About Challenges those are Facing by Company |
Currently what is your main challenge that you facing? [e.g., poor relationship with market, HR skill, no idea generation team, poor R&D etc.]

Is there any limitations with Penawar Industry? Thereby, the company cannot move to service oriented viewpoint [e.g., Technology limitation, finance limitation, HR skill limitation, service knowledge limitation, management and marketing skill limitation etc.]

Could you kindly share about your company's strengths, for example; Good marketing team, Advanced technology, trusty business channel, strong inter-intra relationship etc.

About Corporate Collaboration, Competitors, and Revenues

Who are your key competitors? Could you kindly explain their core competencies?

Is Penawar Industry collaborating with any other industry? If yes, then what kind of industry and what kind of resources you are sharing with them?

How many percent market-share Penawar Industry is acquiring and how about your annual revenue?

About Building and Restructuring Business Model

Is there any business model to generate Penawar Industry's business?

Would you like to build or restructure your business model on the basis of service value creation perspective through action research?

4.3. Evaluation and result

After collecting 1st term data of Penawar Industries Sdn Bhd, we examined it with descriptive tactic. The results are shown in Table 3. According to the results, we identified that in general synopsis of the Penawar industry is operating its business as pure typical product producer and seller. They realized that the customer voice is important to gain competitive advantages but there is lacking of system to connect them. Regarding inter structure of organization there is missing marketing part which is core to business success. Though management stated that, they have good relationship with inter department, then again we found there is little-bit deficient to decision making process and employees benefits and motivation practice.

Table 3. Feedback and Results.

**About General Overview and Business Nature**

1. Health products producing by using herbal and sea cucumber (gamat).
2. To establish it as a global company through service oriented solution to low income people.
3. Currently the company mainly focusing on B to B business though 13 agents and stockist all over Malaysia. The company is not thinking so much about customer connection. They are just selling the products.
4. Penawar Industry is selling their products in a variety of retail stores over agents, in addition, the company sells directly in Langkawi by its own store.
5. The company are with management, account, factory staffs, and chemist people. There are no specialist and marketing people right now.

**About Organizational Structure**

6. There is office management, finance management, factory management but no marketing management department. Penawar Industry's inter-departmental relationship is good.
7. For some decisions are taking by company owner and some decisions are taking by the basis of employees opinions.
8. Penawar Industry is not giving definite extra benefits for its employees, but it is providing holiday’s traveling recompenses inside of Malaysia.

**About Service Oriented View and its Practice**

9. Penawar Industry is focusing on product producing, unlike but true that, the service concept on its product is in thinking step.
10. We have tried to call a meeting with our agents for informing them about the offered products' benefits in before, but now it is not continuing. In addition, we did not do it with end users, nonetheless when they are calling us about any information regarding our products then we are trying to give them solutions.
11. The training is happening in factory side, because it is required by the government of health in Malaysia. However, in management or office side we are not practicing anything rather their own duties.
12. Yes, we are thinking to innovate new products, but still we don’t have enough ideas about it that, what kind of new products or services will fit for market. On the other hand it is not easy as well, because in some cases, for launching new products or services the government permission is essential. Additionally, outsider support is needed also e.g., government or personal body.
About Challenges those are Facing by Company

[13] Now our main challenge is the lacking of good marketing people. Therefore, there is poor relationship with market.
[14] As I told before that, our main limitation is marketing skill. I would like add here another limitation is mindset. Though we don't have advanced technology, service oriented HR skill as well as service knowledge but we can manage.
[15] It is true that our only strengths in good product production.

About Corporate Collaboration, Competitors, and Revenues

[16] Here in Malaysia many companies are doing same business. However, the competitors is not our main concern.
[17] No, Penawar Industry is not collaborating with any other company, but we have collaboration with forest department of University Sains Malaysia (USM), and agriculture department of University Putra Malaysia (UPM). We are getting financial support from them, while we are giving them our knowledge about herbal product.
[18] Our market-share is 15% and sale is like 300,000 RM per month.

About Building and Restructuring Business Model

[19] No, still we don’t have any business model.
[20] Why not! Of course we would you like to build a business model for us and we are agree to do it with you (STML, UUM).

About Service Oriented View and its Practice in Penawar Industry we originated the service concept on its product for value co-creation with customers is in thinking stage. There are some challenges such as understanding service concept, gathering service knowledge, building good marketing skills and beneficial relationship with market, service mind-set, government assistance, understanding market requirements, technology and so on. Thereby, they can move themselves as a service-based value producer. We also found that, the company has limited experience about its competitors which is affecting to gain competitive advantages and acquiring market share. Conversely, it is good symptom for Penawar industry that, the company is collaborating with two leading universities and doing research though the research. Finally, we recognized that, the main thing that is core to generate a business is missing. It is its business model. The Penawar industry don’t have any business model but they agree to build it from now for providing service oriented value to its recipients.

5. Summary and conclusion

In Malaysia, like other countries, contribution of SMEs in economy development is very important. Malaysia wants to achieve a sustainable service-based economy by the year 2020 and to make it true the country has chosen SMEs because of the critical influence of these industries on GDPs (Zuraida, Norlena, Shahimi, 2015) and more flexibility to communicate with society as well as innovation inspiration. This inspiration makes great confidence for national economy and business sustainability. Gustafsson and Johnson (2003) articulated that, SMEs involvement in services can create a significance to improve innovation, productivity, encourages healthy competition within the organization, and gaining competitive advantages. Therefore, SMEs in Malaysia are more eager to service innovation that may help to ensure achieving sustainable economy by 2020 (Zuraida, Norlena, Shahimi, 2015).

To meet the mentioned objectives by SMEs, adapting with servitization opportunity is necessary. Operating servitization of business and managing it successfully is the bigger challenge (Martinez et al., 2010) in terms of creating value as well as new business. Because, in the aim of adapting servitization, the manufacturers should resoluteness some critical internal and external issues. For example, it requires redesign of the organizational philosophy and needs to improve performing capacity (Werner and Ulaga, 2008) through successful dealing the interface of business, technology, and people (Daim, Jetter, and Demirkan, 2010). Wise and Baumgartner (1999), Oliva and Kallenberg (2003), and Weeks (2010) stated that, to adapt a successful servitization within business, organizations are likely to change their strategies, operations and value chain, technologies, people.
and expertise supporting cultural shifts in the organizational blueprint, and system integration competences (Belal et al., 2012).

However, we investigated one SME of Malaysia which is producing health and cosmetics products. The investigation is regarding of capacity to practice service concept on its core products for value creation. We have find out some critical limitations to adapt servitization opportunity by this company currently. The company still in the typical product producer and seller stage. They have limitations in recognizing customer voice, service marketing concept, service oriented mind-set, solution leaning thinking, knowledge management capacity, beneficial relationship amongst market-stakeholders-employees, advanced technology, understanding competitors strengths and weakness, trusty collaboration for integrating resources, communication with others local and international enterprises, and service value creation-based business model.

However, according to our practical experience in previous works, overcoming all challenges in a same time is difficult work. In addition, adapting servitization with a manufacturing is a time and resource-intensive process (Brown, Gustafsson, and Witell, 2011). Therefore, in this circumstance, SMEs should give main concern to some critical issues from mentioned challenges and focus to overcome them. Improving personnel service idea generation thinking, knowledge creation management from the viewpoint of service marketing concept, and corporate collaboration in terms of integrating resources as well as making beneficial relationship amongst market-stakeholders-government-employees through building a system model is more vital. The government role in this system model is more serious to ensure suitably the harmonisation of SMEs policies-e.g., financial support, infrastructure, technology adaptation, market access etc., application of SMEs including their HR development programme, and observing, monitoring, and evaluation of the performance as well as attainments. Thereby, a SME enables to manage multi knowledge co-creation process and create service-based value for another entities and the entity itself. The future research is should be relates to constructing service system model with action research approach in so doing SMEs can breakthrough the challenges as the way to adjust with servitization opportunity.

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References


Malaysia’s SME statistics, and e-commerce readiness (Retrieved on December 23, 2013).


Predeeben Kannan. (22may, 2013). SME Development In Malaysia – Challenges And Solutions. http://www.sharesinv.com/articles/2013/05/22/sme-development-in-malaysia/


Empirically validating a Buddhist noble eightfold path approach in the study of consumer and organizational behaviors

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Abstract

A literature review traces the roots of the study of people behavior dating back to the 2500-plus-years-old Buddhist Canons of knowledge. Contemporary works on organizational and consumer behaviors considered to reflect parts of the structure of the Buddhist Noble Eightfold Path-driven process-orientation framework were referenced. Among these works include the works of Schwartz and Howard’s Norm Activation Theory and the Theory of Planned Behaviour. Three broad-based hypotheses are posited to study the validity of the suggested broad-based model of both consumer and organizational behaviors. The model reflects an action research process and captures the themes highlighted in the U Theory Model advocated by Professor C. Otto Scharmer from the Massachusetts Institute of Technology. Five empirical cases, with data generated by the use of questionnaire-based survey approaches, are used to provide necessary support of statistical significance. The validity of the model depicts the dynamic interactions among different facets of perceptions and affections of consumers or employees, their views (i.e., personal norm, brand image, brand trust, and attitude), intentions or thoughts (loyalty, commitment), behaviors (continuing repurchase by the consumers and corporate citizenship behavior of employees), and performances.

Keywords: noble eightfold path, Buddhism, norm activation theory, theory of planned behavior, consumer behavior, organizational behavior

1. Introduction

The study of consumer behavior examines the dynamic interaction of (Bennett, 1989) perceptions, attitudes (formed of cognition, affection and conation or intended behaviors), the activities the consumers undertake in their purchasing, consuming and disposing of products and services (Blackwell, Miniard and Engle, 2001), which also involves the influence of environmental events, personal factors, and the marketing-mix initiatives of the organizations (Booms and Bitner, 1982). The study of organizational behaviors also can be seen from the same line of conceptions except that it addresses the perceptions, feelings, thoughts and behaviors of the employees (Schermershorn, Osborn, Uhl-Bien, and Hunt, 2012). Both disciplines aim, eventually, to make a real difference in how the business (or the organizations) and people in them perform and how the customers react to the products and services offered. This research is an attempt to show that the study of both consumer and organizational behaviors can be guided by a broad-based theoretical model that has its roots dated back to 2500-plus years ago that belong to the Buddhist bodies of knowledge. Nevertheless, the variants of the model are opened to flexibility as both disciplines face different contextual environments and concerns of perceptions, such as in organizational behavioral study, the research can aim to study the perceptions of the employees towards cultural values (Hofstede and Bond, 2001) and the ways the employees identify with in-group or out-group memberships (Tajfel and Turner, 1986). Thus, the research objective is: To take the bodies of knowledge back to 2500 + years ago, based on the Buddhist Canons of teachings, in suggesting a broad-based, Noble Eightfold Path-driven
process-orientation framework in the study of consumer and organizational behaviors, and from which five empirical cases are used to provide the validity supports to the proposed framework through the statistical evidences rendered to the three broad-based hypotheses posited (see the Literature Review section).

2. Literature review

The traditional Buddhist teaching stresses, for instance, on wisdom-based virtue development and the cultivation of the mind driven by the mindfulness and contemplation of the reality of phenomena, i.e., the dependent origination, in order to counteract ignorance, undesirable human behaviours and consequences (cf. Johansson, 1979; Yeung, Gimello, and Lai, 2008). Dependent origination is fundamentally a scientifically driven model which provides a different perspective to the understanding of the Buddhist’s Noble Eightfold Path. The ability to provide empirical evidences to the validity of dependent origination provides the convincing ground to influence the others to participate in the mind-cultivation process that is not based on blind faith but on facts-driven faith. Dependent origination reinforces that there is no independently existing world. In other words, as understood by Johansson (1979, pp. 28-29), “the world is a dynamic process, constantly being produced and deliberately constructed by our senses, our thoughts, and our desires.” Specifically, the views people hold will eventually influence their activities, efforts, aspirations, psychological accumulation and also, will condition their perceptions and habitual tendencies, which can be seen in Fig. 1. Based on the perception bases of the six senses, activities, thoughts or intentions can be of six types – namely, the will for form, sound, smell, taste, touch, and for mental images, which cover the scopes of intentions in the study of consumer and organizational behaviours. As it is shown in the process configuration, in Fig. 1, the activity or intention is caused and conditioned, such as by the views and the perceptions and feelings (i.e. satisfied or unsatisfied) formed. According to the Buddhist teaching perspective, this phenomenon indicates that people are stimulated by sensation that is born of the impact of views and desires. The desires, manifested in terms of thoughts or intentions, lead to behaviours and engagement, which subsequently produce the levels and scopes of performances accordingly, including the states of the mind. The creative processes or activities manifested through thought, intention or behaviours mean the initiation of karma, i.e. a volitional act, to lead to uprising there, i.e. performance in terms of the state of mind or quality of life. This research deals with the mundane world although the same model shown in Fig. 1 can ultimately be exploited for the advantage to cause the destruction of intentions or karmic activities and thus arrive at the un-created transcendental state of mind.

Fig. 1. A Buddhist Noble Eightfold Path-Driven Process-Orientation Framework.
In the Buddhist teaching, ultimately, virtue is inseparable from the state of mind or cognition, or affection. In this way, by virtue, there are cognitive virtue, behavioural virtue, and also the virtue-outcome that reflects the stable or tranquil states of the mind. The cognitive aspect of virtue involves discerning rightly, viewing justly or looking impartially, without favour or disfavour (Gopalakrisna and Datta, 2011, p. 63), as shown in the left-hand-side of Fig. 1, which is capable to stimulate the changes to the views one stubbornly hold as defensive cognitive mechanism that could prevent one from unlearning and learning effectively. That is, through cognitive virtue development, one can change one’s behavioural intentions (known as decisional forgiveness) as well as replace negative and unforgiving emotions with positive or other-oriented emotion (Worthington, 2005). This cognitive learning process essentially drives consumer and employee behaviours, including the future learning tendency (stated in the Law of Primacy, stating that early learning about a product will affect future learning, Hoch and Ha, 1986), as depicted in the cyclical process shown in Fig. 1.

By putting the Buddhist philosophy in the contemporary context, Schwartz and Howard’s (1981) Norm Activation Theory (NAT) and the Theory of Planned Behaviour (Ajzen, 1991) are seen to reflect parts of the broad-based structure shown in Fig. 1. In NAT, people behaviours, such as altruistic or pro-social environmental behaviours, can be influenced and predicted by their perceptions caused by awareness of the needs to perform the tasks, their commitment to accept the responsibility for their actions, and the views or beliefs that they hold of having the capability to perform well the actions. Besides, according to the Theory of Planned Behaviour, the perceptions over the cognitive, behavioural and performance-oriented evidences can significantly influence personal norms (or views) and thus intention and behaviours (Ajzen, 1991). The cognitive-, behavioural- and consequential-domains of actions and the perceptions of them are also the domains of CSR (Corporate Social Responsibility), represented in terms of CSR1 (i.e. views of CSR), CSR2 (responsive behaviours), CSR3 (the rectitude and integrity established from the evidences of the behaviours), and CSP (Corporate Social Performances) (Buchholtz and Carroll, 2008). The theme of CSR is applicable to the service industry as CSR can be referred to as actions that appeal to further some social good (Lee, Seo and Sharma, 2013), which reflects the values desired by the stakeholders such as employees and consumers, or the societies as a whole (Kok, Weile, McKenna and Brown, 2001), the themes directed to compassionate attitudes and behaviours of people (Johansson, 1979), and performance nature along the principle that —doing better at doing good (Fombrun and Vasquez-Parraga, 2013).

The cyclical process shown in Fig. 1 shares as well the theme of action research, which incorporates putting right the view (driven by knowledge) in guiding strategic and operational intentions for better results (Stephens, 2011). In order to support the validity of Fig. 1 as broad-based theoretical framework in the study of both consumer and organizational behaviours, the following broad-based hypotheses are established:

Hypothesis 1 (H1): What one perceives, feels or experiences, in various different ways, in responding to the different nature of application contexts of the phenomenon (i.e. consumer behavioural study, or organizational behavioural study), influences one’s view (i.e. manifested either in terms or personal norm, brand image, brand trust, or attitude), or thought or intention (i.e. loyalty, commitment), or behaviours (i.e. characterized by the continuing purchase of consumers, or corporate citizenship behaviours or engagements of employees).

Hypothesis 2 (H2): Views (i.e. personal norm, brand image, brand trust, attitude) influences thought or intention (i.e. loyalty, commitment), which in turn influences behaviours (i.e. continue purchase of consumers, or corporate citizenship behaviours of employees), and then causes the performances.
Hypothesis 3 (H3): There are dynamic interactions or correlational relationships among the variables of the perceptions and affections of the experiences encountered (as indicated inside the thick bracket in Fig. 1).

Note that, due to the cyclical closed-loop process configuration of Fig. 1, it is possible that view can also influence the perceptions of consumers and employees. The three hypotheses are broad-based and could vary in the details from context to context, or from different applications to applications, as shown by the five empirical cases studied in this research. The direct perceptions are important which can help to prevent the biased or defensive influence of the views. As illustrated in Fig. 2, according to Professor C. Otto Scharmer (2009) from the Massachusetts Institute of Technology (MIT), when one starts to suspend his or her assumptions or views (by avoiding straight-jacketed downloading that re-enacts the patterns of the past, through habits of thoughts, ibid, p. 39) and redirects to actual sensing in the actual field, it will allow the so-called —presencing— to occur so that he or she can form a better understanding (vision) and thus puts right the intention to further stimulate better prototyping behaviour, and thus achieves better levels and scopes of performances.

3. Research method

The research process is conceived along the deductive manner, based on taking the philosophical roots of the Buddhist teaching, dated back 2500-plus years ago, to contribute to today's knowledge about consumer and organizational behavioral studies. The literature review provides a structural linkage of the Buddhist principle, noted as the Noble Eightfold Path framework or in its broad-based Dependent Origination (Yeung, Gimello, and Lai, 2008), to the contemporary theory of people, employee and consumer behaviors (cf. Ajzen, 1991; Schwartz and Howard, 1981). Based on these analytical inferences and implications, three broad-based hypotheses are posited, and five empirical cases are employed to provide the empirical evidences to support the validity of the theoretical framework shown in Fig. 1. The profiles of the different cases are explained in the Data Analysis and Discussion section. Data were obtained based on questionnaire-based surveys, being shown of their inter-item reliability and the validity structure through exploratory factor analysis and multivariate regression analysis. As the purpose of the research is to study the broad structure of the theoretical framework of Fig. 1, the Analysis of Variance (ANOVA) and t-test that aim to examine the comparative significances of differences of the different segmentation variables (i.e. psychographic or demographic, or usage-based segmentations) would be excluded in this study.

Fig. 2. The U Theory Model (Source: Scharmer, 2008).
4. Data analysis and discussion

The data collected for the five cases in this research study are questionnaire-based. Statistical analysis exploits the software advantages of SPSS Version 23. Factor and reliability analyses are carefully examined prior to any inferential study. Due to space constraint, as well as driven by the objective of this research, the Analysis of Variance (ANOVA) and T-test would not be studied, and only the structural models are presented which aim to provide the empirical supports to the validity of the general theoretical framework illustrated in the literature review section. By means of general, it implies to provide the scopes of flexibility that allow the appropriate constructs or variables to fit the general theoretical model and its structure of relationships of the constructs or variables, in many different contextual phenomena and environments. Case 1 involves a social enterprise. Cases 2 to 5 are examples of the service organizations and the industry. Specifically, cases 2 and 3 focus on the perceptions of the consumers, and cases 4 and 5 are purported to study the perceptions of the employees in the service environment. Thus, these five empirical cases are multi-faceted in nature, which should provide a general validity outlook of this research.

Case 1: Indonesia data (H1 and H2 are supported)

To test the validity of the broad-based model shown in Fig. 1 in the literature review section, the perceptions and opinions of the eighty-two donors who make frequent donations to a social enterprise in Indonesia known as Rumah Zakat Indonesia (RZI) are studied. RZI’s vision, as quoted in their official website, is to —become a trusted and leading zakat (donation) collector-distributor that works with international-standard professionalism, and their mission is —to create an independent society through productive empowerment and to increase and perfect community service through human excellence. Besides that, RZI also clearly states that their brand value is trusted, progressive, and humanitarian.

The result of the multivariate regression analysis of the RZI data, in Fig. 3 shows, first, that both the perceptions of the donors in terms of how the brand presents to them, as brand identity (symbolizing CSR1) and how the brand has served them and the societies, in terms of brand integrity (delineating CSR2 and CSR3), can contribute to explain the variance in both brand image of the social enterprise (a CSP) and brand trust of the donors on the other hand, at 89.1% and 54.8%, respectively. This supports the H1 structure. Both brand trust (with Beta of 0.326) and brand image (with Beta of 0.516) provide the base of positive view for enacting behavioural loyalty, at 49.7% of the variance. Thus the broad-based hypothesis 2 (structure) is supported. It is noted that all the constructs are measured by self-developed questionnaires of multi-items which indicate robust inter-item reliability coefficients (Cronbach’s Alpha) in the range of 0.924 to 0.977 that also passes the examination of unitary factor analysis. For instance, brand identity (Alpha = 0.965) is measured by, for instance, —RZI is a very professional institution, can be trusted with a mission to help the Muslim community, has a tight correlation with Islam value, etc., and brand integrity (Alpha of 0.977) is measured by, for instance, —RZI program is solving the current issue of Muslim world, has made huge contribution in the Islamic world, is honest in a professional way, has a transparent system, and brand image (Alpha of 0.975) is measured, for instance, by —RZI name is aligned with their vision, mission and practice in the field, has proven that Islamic value can be combined with modern lifestyle, and RZI projects strong Islamic values in every program offered.
The model contributes also to provide a structural mechanism to implement the abstract concept depicted in the customer-based brand equity model (Keller, 2002), in which brand identity at the salience level and brand integrity at the performance level lead to brand image and brand trust (i.e. consumer judgment) at the response level.

**Case 2: Branded coffee chains in Thailand (H1, H2 and H3 are all supported)**

For this case, 400 participants from Bangkok (48.3%) and Chiang Rai (51.8%), were involved in the survey, with 52.5% female customers and 47.5% male customers, in using Amazon Café (32.5%), Starbucks (28.5%), Doi Chang (at 16%), Black Canyon (at 13.5%) and others at 9.5%. Among them, 53.8% responded that they visit the branded coffee shops occasionally, or when opportunity arises; otherwise, 23% indicated much frequent visit behaviours, or once a day at 5.3%. Others are clustered into 11.3%. When asked for the main purpose of visit, 31% told of finding a sitting area to relax, followed by a desire for coffees and food at 20.5%, in search for friendly service at 11.5%, and for socializing purpose at 10%, and for after-work refreshing purpose at 7.5%. The rest are functional issues such as respondents being attracted due to the on-going promotional campaign, or simply a visit driven by physiological needs, i.e. hungry, collectively, at less than 10%. The survey instrument is designed by adapting the concepts and the empirical works of different authors, with the main ones as Feldwick (1996), Han, Yun, Kim and Kwahk (2000), Kombenjamas and Lertrattananon (2011), Lassar, Mittal and Sharma (1995), and Tuu and Olsen (2010). Reliability coefficients in terms of Cronbach’s Alpha are calculated to fall in the range of 0.781 to 0.912.

Specifically, from the Fig. 4 shown below, 83.3% of variance in brand trust, which shows the cognitive nature of customer motive playing the role, can be explained by customers engaging with the brand experiences through marketing-mix service experiences (see inside the thick bracket in Fig. 4) and the brand attitude formed (Beta = 0.728, cf. Arnett, 1996; East, Wright, and Vanhuele, 2013), and the affective customer satisfaction, at BETA of 0.250. In turn, both brand trust (Beta = 0.240), and customer satisfaction (Beta = 0.607) can collectively explain customer loyalty’s variance at 63.9 per cents. This model demonstrates the support for H1, H2 and H3, and thus the broad-based model shown in Fig. 1. The exploratory factor analysis highlights the —affective‖ aspect of customer loyalty, i.e., —The delightful feeling from this coffee ship makes me satisfied every time I recall it,‖ as well as the behavioural nature demonstrated for instance by, ―I would love to come back to this coffee shop again,‖ and ―I would say positive words about this coffee shop to others.‖ While the affective loyalty
stresses on emotion and feeling (Pichard and Robinson, 2012), behavioural loyalty emphasizes on the action of the customers, i.e. to revisit (Kim and Ritchie, 2014).

In the aspects of the service marketing-mix variables, the environment describes the role of the landscape and servicescape of the coffee shop (see Bitner, 1992). Other variables in the service marketing construct are self-explainable, as shown in Fig. 4. Overall, customer perceptions over the qualities of the service marketing strategies and actions of the branded coffee chains lead the customers to believe that by choosing certain brands they have behavioural control over their decisions – i.e. that they can receive responsive well-manner services (cf. Ajzen, 1991), which in turn influence customer attitude towards the brand as well as the confidence and trust customers have over the brand. Thus the supportability of H1, H2 and H3 in this case reflects the essential concepts presented in the Theory of Planned Behaviours (Ajzen, 1991). In other words, behavioural control, reflected by the satisfactory level made possible by the quality of the marketing-mix services, manifests customer’s beliefs over the products and the services, and together with the attitude formed towards the brand, drive consumer behaviours, i.e. in terms of trust and loyalty, which is also reflected in the Fishbein Model (Fishbein, 1963).

**Case 3: Patient perceptions of the services of hospitals in Chiangrai (H1 and H3 are supported)**

In this case, H1 and H3 are shown to be supported, based on the statistical analysis of the data collected from the patients of two private (Overbrook Hospital and Kasemrad Srirun Hospital) and two public hospitals (Mae Fah Luang Hospital and Chiang Rai Prachanukroh Hospital) in Chiang Rai. The statistical analysis was based on 447 participants in the survey. Among the participants, 33.6% are male and 66.4% female. Among them, the majority, 41.4%, are in between 18-30 years old, 21.7% in between 30-40 years old, and 14.1% in between 40-50 years old. Age group under 18 years old is at 10.5%, while the rest, 50 to less than 60 at 4.7%, and 60% or above at 7.6%. In a broader sense, 50% of the participants are less than 30 years old, and the rest are older than 30 years old. Besides, 66.9% of them are single and 33.1% married. While 86.8% of the participants are Thai, 13.2% of them are from Myanmar. In the study of the descriptive mean, empathic caring is the most important factor the patients addressed, at 4.3102 (of Five Likert Scales, from —11 strongly disagree to —51 strongly agree). Nevertheless, the perceived performance of empathic caring is at 3.8407, and thus this depicts the service quality gap.
The model shown in Fig. 5 is a result of the multivariate regression analysis, and it implies that there is a Gestalt psychology in action, in which patients draw cues also from the service environment, shown by both hard and soft service quality in explaining the 76.2% of the variance in the perceived empathic caring. This manifests the dynamic interaction and correlational behaviours among the variables of the different facets of perceptions shown in Fig. 1. In fact, Gestalt psychologists have long questioned how humans are able to solve the adaptive tasks of integrating and making sense of the barrage of what are sensed and perceived, which is also a theme of environmental psychology (see Baker, 1968; Gardner and Stern, 2002). This research also shares the similar discovery of Berry, Davis and Wilmet (2015) in an October version of the Harvard Business Review, which reveals that patients can read the empathic messages of the hospitals and their services from a variety of tangible and intangible aspects of services, i.e. body language, choice of words, tone of voice, and appearance of staff members. Also, according to Cleveland Clinic, of 43,000 employees, empathic caring is pivotal in rallying people around a core element of the mission of the hospitals: to provide exceptional patient experiences (quoted in Berry et al. 2015, p. 94). In other words, affective or empathic caring should be incorporated in the overall service and tangible designs of the hospitals and be positioned in the minds and hearts of the patients. Affective or empathy driven designs should consider, for instance, waiting areas, reachability and accessibility to the facilities and services, as evidenced in the study of Haron, Hamid, and Talib (2012).

In addition, for 77.2% of the explanation of the variance in patient satisfaction, hospital patients perceive affordable price and value for the price paid important, including the assured credibility of the staffs, doctors, and drugs used, and a host of other responsiveness qualities i.e. short waiting time, quick responses, prompt services, the easy accessibility to staff attention and the reliability of the billing information. A recent Bangkok Post’s (2015) publication also shows that medical bills are among the key consideration agenda of the patients. Patient loyalty reflects both the attitude and behaviours of the patients, for instance, in aspects of —Have no doubt to choose this hospital again for future diagnosis,—When suffer illness, this hospital is preferred choice,—Would always recommend this hospital to someone else who seeks advice,—Would say good words about this hospital to others,—Would encourage friends and relatives to use this hospital services,—Would revisit this hospital again,—Would consider this hospital as first choice when traveling to the area, and —Would always have health-checkup at this hospital without considering other alternatives. Patient satisfaction is the single most important factor that can explain the variance in patient loyalty, at 73.4%.

Fig. 5. Service Excellence Model of Hospital Service.
Case 4: Construction material trading case organization (H1, H2 and H3 are supported)

In this case a private largest construction material trading firm in Chiang Rai is studied as a part of an action research. Action research (cf. Lewin, 1952) has a long history. Action research involves cyclical, dynamic and collaborative process which aims to address organizational issues that affect the performances of the organization as well as the psychological states of the employees, i.e. job satisfaction. As there are only 71 employees in the organization, which all had participated, the research has to resolve first to in-depth interviews in order to find out the most relevant factors that concern the employees at the moment the organization is in the state of reengineering and change management. In doing so, this research can secure higher level of R-squared in multivariate regression analysis and maintain homogeneity in factor analysis, which justifies the use of smaller sample size (cf. Cohen, 1992). Among the participants, 53.5% are officers, 32.4% in labor workforces, and 14.1% in metal sheet section. Also, 36.6% of them have been serving the company for less than 1 year, 29.6% in between 1 to 3 years, 21.1 between 3 to 6 years, and 12.7% over six years. 60.6% are males and 39.5% females, with age ranging less than 20 years old in 2.8%, 21-25 years old in 18.8%, 26-30 years old in 32.4% , 31-45% in 35.2% and 11.3% more than 45 years old. Survey instrument is developed by adapting the concepts, definitions and empirical works of Buchanan (1974), Klein, Wesson, Hollenbeck and Alge (1999), Kline (1999), McKnight (1997), Mowday, Porter, Steers and Boulian (1974), Podsakoff, Ahearne and MacKenzie (1997), Tremblay, Blanchard, Taylor and Pelletier (2009), Van Scotter and Motowidlo (1996), and Wiener (1982). Reliability coefficients, being indicated by Cronbach’s Alpha, are determined to be in the ranges of 0.70-0.881.

Structural relationships of variables of the statistical analysis are shown in Fig. 6, which describes how the variance in both in-role and extra-role corporate citizenship behaviours can be explained by how employees feel and perceive pertaining to the different facets of job characteristics, the extrinsic and intrinsic motivation and organizational commitment at the individual and team-level, as well as the vision-, strategy- and policy-enabled change management perceptions at the organizational level. These antecedent factors can collectively explain the variance in in-role and extra-role corporate citizenship behaviours (OCBs) at 58.8% and 49.5%, respectively. While extra-role OCBs show the willingness of the employees to surpass contractual or minimum job or work role requirements (Organ, 1988), the in-role OCBs indicate the commitment and behaviours of obligations demanded by the norms of reciprocity. Thus, clearly, H1, H2 and H3 are supported.

![Fig. 6. For a Construction Material Trading Organization Case.](image-url)
Case 5: Construction industry in Chiang Rai (H1, H2 and H3 are supported)

In this case, the perceptions of the construction workers of three construction sites in Chiang Rai province were sought. At the time of the questionnaire-based surveys, the smallest site has about 20 construction workers, the medium site at 50 workers, and the largest being surveyed at more than 100 construction workers. The three chosen construction sites depict different nature of job demand and resources. The instrument design adapts the conceptual definitions and the empirical evidences of Hackman and Oldham (1975), Locke and Latham (2002), Stajkovic and Luthans (2003), and Williams, Miller, and Steelman (1999). Reliability, in terms of Cronbach Alpha, was calculated in the range of 0.650-0.921, based on 150 construction workers. Among the workers, 78.5% are male and 21.50% are female, and 59.6% are in single marital state, with 37.4% married and 3% divorced. Majority at 94.4% are Thai while workers from Myanmar are 5.6%. Also, 51.9% of them are full-time workers and another 48.1% part-time workers. Most of them live in the distance in between 6 to 10 km, at 35.60%, while the others live slightly further.

Personal resources include pride in the job and willingness in doing the job well, as well as participatory nature in the decision making. Personal resources are generally not particularly addressed in either research study or in the practical environment, and this research shows that they must be repositioned in the focal radar of the organization. In particular, the construction companies would need to improve the welfare conditions and the standards of resource provision in supporting the employees, and ensure the fairness of regulations and the good working atmospheres at the workplace, including safety precaution measures in the workplaces. Specifically, as indicated in Fig. 7, employee perceptions over the aspects of job and personal resources, relating to supervisory relationship (Beta = 0.105), collegial relationship (Beta = 0.238), job autonomy (Beta = 0.071), and company provision of attractive policies and ethical protection (Beta = 0.229), pride in the job (Beta = 0.098), and decision making (Beta = 0.176), are shown to have the significant ability to explain the variance in job satisfaction, in the positive direction; whereas job demand in terms of workload, emotion, mental and physical demands seem to un-match the realities of perceived job resources, indicated by Beta = -0.07. Together, perceptions of job characteristics at the personal resource level, job resource level, and job demand level, can explain the variance in job satisfaction at 90.9%.

Fig.7. Case Studying the Construction Industry in Chiang Rai.
In view of the structure of determining factors capable to explain the variance of employee loyalty, for 85.6%, it is important the construction companies attempt to foster a good harmonious working relationship, significantly of the workers and their colleagues, from which they can obtain the necessary encouragement in stressful or job-demanding environment and the necessary teamwork and intellectual sources for brainstorming to help them succeed in work and achieve targeted work goals at the construction sites. In addition, the construction companies should attend to improve the level of pride on the job, broaden decision-making space and clarify the role of the company in aspect of resources provision, and are committed to bring job satisfaction to the workers. Judging from the nature of the predictors, namely colleague relationship and job satisfaction in influencing employee loyalty, which is feeling in the former and evaluative in the latter, worker loyalty has a psychological inclination that contains —feeling! (Boroff and Lewin, 1997), as well as evaluative consequences including attachment (Leck and Saunders, 1992) and commitment to the organization (Sverke and Goslinga, 2003). In other words, to influence job-related performance, for instance, in on-time delivery of construction project, the zero-accidents on the job site and the quality of the construction work in matching the specified standards, the construction companies would need to ensure the creation of a favourable psychological state of feeling and commitment to the employees, represented by their loyalty and job satisfaction. In sum, H1, H2 and H3 are also supported in the context of construction industry.

5. Conclusion

This research exploits the behavioural science and knowledge derived from the Buddhist concept, dated back 2500-plus years ago, to study consumer-oriented, cause-related social enterprising strategies, and organizational behaviours. Religion such as Buddhism is pivotal in a theme, —doing better at doing good.1 The Noble Eightfold Path-driven process-orientation framework, manifested also in the contemporary behavioural models, for instance, of Schwartz and Howard’s (1981) Norm Activation Theory (NAT) and Ajzen’s (1991) Theory of Planned Behaviour, has shown of its broad-based perceptions oriented advantages in the study of both consumer and organizational behaviours, capable to apply to brand management, human resource management, and service quality management. Three broad hypothesis structures have been statistically shown to be supported. The flexibility of the Noble Eightfold Path, consisting of the mindfulness and contemplation of the simultaneous workings of views (i.e. CSR1), Behaviours (CSR2 and CSR3), and CSP or performance, is made possible by nurturing the —skill-ness or skill-in-meansl theme of Buddhism (Lee, 2011). Further research could extend to incorporate, for instance, characteristics of competitive advantage of organizations. At this juncture, by the theme of skill-in-means attitude, the virtue oriented control and action-research driven development path in the Noble Eightfold Path, it can be inferred that competitive advantage may be attributable to control, development and generative mechanisms. Further research may have to pay particular focus on initiatives and scopes of mindfulness, as this research has shown that when one is mindful of what he or she senses or experiences, it helps to improve views, thoughts, behaviours and thus performance outcome, which is a concept actively pursued by Professor C. Otto Scharmer (2009) at MIT.

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References


McKnight, D.H. (1997). Motivating computer systems operators: Job characteristics, controls, and relationship, University of Minnesota, Minnesota, USA.


Opportunities and threats of AEC on five-star hotels in Thailand: the free flow of skilled labours

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Abstract
This study investigates the opportunities and threats brought by the free flow of skilled labor of ASEAN Economic Community (AEC) to five-star hotels in Thailand. To collect data, the author used a purely qualitative research methodology to interview top management of the human resources department of these hotels. Although the author was able to interview only a few of the resources, findings showed that independent hotels are well-prepared for the free flow of skilled labor. The respondents observed that the free flow of skilled labor could bring them skillful and talented laborers, as well as aid them export the Thai hospitality. They hoped that the free flow of skilled labor could make the Thais aware of and improve on their weaknesses. In addition, they saw the necessity of using their hotel culture to link the labor with their hotels. The author believes that this study can provide insights into the Thai industries that are yet to be influenced by the free flow of skilled labor to prepare themselves in a substantial manner.

Keywords: AEC, free flow of skilled labor, five-star hotels in Thailand, opportunities, threats

1. Introduction
The Association of Southeast Asian Nations (ASEAN) adopted The ASEAN Economic Community (AEC) Blueprint in 2007. In November 2015, the ASEAN leaders announced the AEC would inaugurate from the beginning of 2016 officially. The AEC is to combine 10 ASEAN countries which include Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Singapore, the Philippines, Thailand, and Vietnam into a single identity. The idea of the setting up the AEC is to increase the competitiveness of these countries globally through the free flow of goods, services, skilled labours and investment, and the freer flow of capital (Association of Southeast Asian Nations, 2007).

Many believe the formation would benefit the tourism industry in ASEAN substantially (Swinfen, 2012). First, 600 million people; in particular the rising middle class of these ASEAN countries can travel around the region freely (Hamdi, 2013; Kyaw, 2015). Second, the AEC will reduce limitations of non-ASEAN tourist movement in the region. The tourists can apply for one visa to enter all ASEAN countries (Chareonwongsak, n.d.). Third, the transportation across the ASEAN countries have became more affordable and convenient. In the past few years, at least five low budget airlines were launched in the region. They are AirAsia Philippines, Singapore’s Scoot, Indonesia’s Mandala, Thai Smile and Lao Central Airlines (Hamdi, 2013). According to the Center for Asia-Pacific Aviation, there are rooms for low budget airlines to increase their market share; particularly in Vietnam and Myanmar, where the penetration rate of these airlines is below the global average of 26% (in Hamdi, 2013).

Located in the centre of the region and bordered by several neighbouring countries, the tourism industry in Thailand will benefit from this ASEAN’s single market largely (Piyaman Techapaibul, President of Tourism Council of Thailand, in Ngamsangchaikit, 2013). Seeing the potential growth in
the number of tourists visiting Thailand, the Association of Thai Travel Agents plans to launch an ASEAN Visit Year in 2017. The purposes of this campaign are to promote tourism in the region and encourage its members to build regional travel packages and tourism products (Ngamsangchaikit, 2015). Hotels in Thailand then have to plan their manpower to meet the growth of tourists.

1.1. Problem statement

About the Guide to ASEAN Mutual Recognition Arrangement on Tourism Professionals - For Tourism & Hospitality Organisations (MRA – TP) (Association of Southeast Asian Nations, 2012), 23 hotel job titles are subjected to the free flow of skilled labours (figure 1). These jobs are open to ASEAN nationals who hold an MRA-TP certification (figure 2). Despite the ASEAN countries can still regulate the inflow of the labours, more jobs will be open up to ASEAN nationals technically (Phuket News, n.d.).

Some believe the free flow of skilled labours will brace hotels in Thailand for foreign labours who possess better qualifications and language skills. However, the President of Thailand’s Exhibition Industry Association (TEA) (in Ngamsangchaikit, 2012) sees that if Thai labours do not improve their work skills or the cost of recruiting foreign labours is cheaper than that of recruiting local labours, the foreign labours will deprive Thai people of their job opportunities. Sritima (2015) concerns the foreign labours might cause tensions with Thai labours. Khun Anusorn Thanmajai, Dean of Faculty of Economics of the Rangsit University (in The Nation, 2012), claims the free flow of skilled labours might prompt Thai workers to seek employments in the region. In this way, companies might face a "hollowing out" problem; particularly at their supervisory and managerial levels.

This paper is to address issues the free flow of skilled labour will bring to five-star hotels in Thailand. What are opportunities and threats the free flow of skilled labour will bring to five-star hotels in Thailand?

To answer the question, the author will interview top management of the Human Resources Department of five-star hotels in Bangkok. Through the interviews, the author would like to achieve the following objectives:

a. To know pros and cons, the free flow of skilled labour will bring to these hotels and
b. To know the preparation of these hotels for the free flow of skilled labours.

1.2. Significance

The hotel industry is one of the seven industries which are first open to the free flow of skilled labours. However, the free flow of skilled labours will influence those industries which are currently excluded from the MRA. The author hopes this paper can give references and insights to enterprises of these industries ways they could prepare themselves better for the free flow of skilled labours.

2. Literature review

2.1. AEC blueprint

The formation of the AEC is to transform the 10 ASEAN countries —into a single market and production base, a highly competitive economic region, a region of equitable development, and a region fully integrated into the global economy (Association of Southeast Asian Nations, 2007, p.2)— through the free flow of goods, services, investments and skilled labours, and freer flow of capital.

The free flow of goods is to achieve a single market and production base. It aims to enhance the ASEAN’s capacity to serve as a global production centre or as a part of the global supply chain. The
Free flow of investments aims to attract foreign direct investment and intra-ASEAN investment. The free flow of services is to provide a substantial freedom to ASEAN service suppliers to facilitate a cross-border interaction in ASEAN. It aims to spur competitions, lower prices and increase the quality of service. The free flow of skilled labours is to facilitate the entry for movement of natural persons who engaged in trading of goods, services and investments. It aims to strengthen the research capabilities of skill promotions, job placements and develop labour market information networks for its member countries. The freer flow of capital is to link the individual market of the ASEAN with a common platform to harmonise rules and regulations to ease investments across countries. It aims to lower costs of financing.

2.2. Free flow of skilled labour in the context of hotels - The ASEAN MRA-TP

The Guide to ASEAN Mutual Recognition Arrangement on Tourism Professionals - For Tourism & Hospitality Organisations (The MRA-TP) (2012) lists out 23 hotel job titles that are open for ASEAN nationals (figure 1). However, the foreign labours are not free from restrictions to work in these countries. First, the MRA-TP standardises their qualifications so as to raise the standards of hotel workforces to improve the quality of hotel services (figure 2). Second, the foreign labours are subjected to prevailing rules and regulations of the receiving countries. For example, foreign labours in Thailand are required to apply for a non-immigrant visa in their home country, and a work permit that is subjected to annual renewal and a re-entry permit in Thailand.

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<th>Food Production</th>
<th>Food and Beverage Service</th>
<th>TRAVEL SERVICES</th>
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<td>Commiss Chef</td>
<td>Head Waiter</td>
<td>Senior Travel Consultant</td>
</tr>
<tr>
<td>Telephone Operator</td>
<td>Laundry Attendant</td>
<td>Chef de Partie</td>
<td>Bartender</td>
<td>Travel Consultant</td>
</tr>
<tr>
<td>Bell Boy</td>
<td>Room Attendant</td>
<td>Commiss Pastry</td>
<td>Waiter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public Area Cleaner</td>
<td>Baker</td>
<td></td>
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</tr>
<tr>
<td></td>
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<td>Butcher</td>
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</tbody>
</table>

Fig. 1.
Source: Guide to ASEAN Mutual Recognition Arrangement on Tourism Profession – For Tourism and Hospitality Organisations (2012)
<table>
<thead>
<tr>
<th>Framework Level</th>
<th>Level Indicator</th>
</tr>
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<tbody>
<tr>
<td><strong>Level 5</strong></td>
<td>Sophisticated, broad and specialised competence with senior management skills</td>
</tr>
<tr>
<td><strong>Advanced Diploma</strong></td>
<td>Technical, creative, conceptual or managerial applications built around competencies of either a broad or specialised base and related to a broader organisational focus.</td>
</tr>
<tr>
<td>Level 4 - Diploma</td>
<td>Specialised competence with managerial skills</td>
</tr>
<tr>
<td>Level 3 - Certificate IV</td>
<td>Assumes a greater theoretical base and consists of specialised, technical or managerial competencies used to plan, carry out and evaluate work of self and/or team.</td>
</tr>
<tr>
<td>Level 2 - Certificate III</td>
<td>Greater technical competence with supervisory skills</td>
</tr>
<tr>
<td>Level 1 - Certificate II</td>
<td>More sophisticated technical applications involving competencies requiring increased theoretical knowledge, applied in a non-routine environment and which may involve team leadership and management and increased responsibility for outcomes.</td>
</tr>
<tr>
<td><strong>Certificate II</strong></td>
<td>Broad range of skills in more varied context and team leader responsibilities</td>
</tr>
<tr>
<td><strong>Certificate III</strong></td>
<td>Skilled operator who applies a broad range of competencies within a more varied work context, possibly providing technical advice and support to a team including having team leader responsibilities.</td>
</tr>
<tr>
<td><strong>Certificate IV</strong></td>
<td>Basic, routine skills in a defined context</td>
</tr>
<tr>
<td><strong>Diploma</strong></td>
<td>A base operational qualification that encompasses a range of functions/activities requiring fundamental operational knowledge and limited practical skills in a defined context.</td>
</tr>
<tr>
<td><strong>Advanced Diploma</strong></td>
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<tr>
<td><strong>Sub-Total</strong></td>
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<th>Certificate III</th>
<th>Certificate IV</th>
<th>Diploma</th>
<th>Advanced Diploma</th>
<th>Sub-Total</th>
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</thead>
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<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Food Production</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Front Office</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Housekeeping</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
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<td>3</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Travel Agencies</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>52</td>
</tr>
</tbody>
</table>

Fig. 2.

Source: Guide to ASEAN Mutual Recognition Arrangement on Tourism Profession – For Tourism and Hospitality Organisations (2012)
2.3. Flow of labours and foreign labours in the hotel industry

The flow of labours is typical in the hospitality industry (Baum et al. in Baum, 2012). Several reasons help explain the trend. First, the general salary level of those who work in the hotel and restaurant sector is comparatively low (2004 Eurofound Report in Baum, 2012). Hence, people in the industry tend to move to work in other hotels or industrial sectors that offer them a higher salary or fringe benefits. Secondly, hotel jobs are labour-intensive, and some of the jobs are low-skilled required (Baum, 2012). Hence, hotels are among the world’s top job creators and allows a quick entry for people into the industry (Baum, 2012). Also, owing to those who work in hotels are required to have a few language skills, hotels tend to recruit multicultural labours (Gray in Baum, 2012).

Foreign labours bring opportunities and challenges to hotels. Regarding an online survey which asks managers of some hotels in Europe influences the labours on their hotels, some of the findings are as follows (Baum, 2012):

- 91% of them responded the cultural diversity of the labours can benefit their hotels greatly. 85% of them responded the labours can greatly improve the talent pool.
- 81% of them responded the labours will not create problems for their local workforce. 66% of them responded the labours will improve the workforce quality.
- 59% of them responded the labours will not cause tensions in workplaces.
- 54% of them responded the labours are popular among guests.

However, the use of the labours is not without challenges. Hall (in Baum, 2012) claims that foreign labours might bring in attitude and experiences that do not fit the requirements of the hotel industry. Also, owing to many of them do not consider working in hotels as their long-term career plans, they tend to return to their home country after a certain period (Conradson & Latham; Findlay in Baum, 2012). All these will put stresses on the training and development programmes of hotels. Furthermore, researches show that talented workforces of hotels often look for outside employments (ILO, in Dragolea and Cotîrlea, 2011). Hence, after training the foreign labours, they might have a tendency to leave the hotels. This might result in creating a hollowing-out problem at the supervisory and managerial level of hotels.

3. Research methodology

The data of this research consisted of both primary and secondary one. The author employed a qualitative research methodology to collect the primary data. The use of the qualitative research methodology helps collect non-quantifiable insights into behavior, motivations, and attitudes (Creswell & Plano, 2011). Also, the methodology can explore and comprehend information that is about social or human-related information (Creswell, 2009). The author conducted a semi-structured interview to collect in-depth exploratory data. Regarding the number of interviewees, Walker (1985) said that data collected from 40 people were considered valid. About the criteria for selecting the interviewees, the author used the Judgmental Sampling method, a non-probability sampling technique. The selection was based on the professional knowledge and judgment of interviewees (Explorable, n.d.). The author then used the content analysis method to analysis the data collected. About the secondary data, the author collected data that were about AEC, The ASEAN MRA -TP, and labours of the hotel industry from books, literature, papers, journals, newspapers, dissertations, and websites.
According to the Thailand Hotel Association (2016), there are 22 five stars hotels in Bangkok (figure 3). The hotels can be categorised into international chain hotels and independent hotels. For examples, the Conrad Bangkok Hotel belongs to the Hilton Worldwide and the Sukhothai Hotel is an independent hotel.

<table>
<thead>
<tr>
<th></th>
<th>Name of Hotel</th>
<th>Type</th>
<th>Star Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AETUS LUMPINI</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>2</td>
<td>AMARI WATERGATE BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>3</td>
<td>ANANTARA BANGKOK RIVERSIDE RESORT &amp; SPA</td>
<td>RESORT</td>
<td>5 stars</td>
</tr>
<tr>
<td>4</td>
<td>BANYAN TREE BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>5</td>
<td>CENTARA GRAND AT CENTRAL PLAZA LADPRAO BA</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>6</td>
<td>CENTARA GRAND AT CENTRAL WORLD</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>7</td>
<td>CONRAD BANGKOK HOTEL</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>8</td>
<td>INTERCONTINENTAL BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>9</td>
<td>METROPOLITAN BANGKOK HOTEL</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>10</td>
<td>PATHUMWAN PRINCESS HOTEL</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>11</td>
<td>PULLMAN BANGKOK KING POWER</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>12</td>
<td>RAMADA PLAZA BANGKOK MENAM RIVERSIDE</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>13</td>
<td>ROYAL ORCHID SHERATON HOTEL &amp; TOWERS</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>14</td>
<td>SHANGRI - LA HOTEL BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>15</td>
<td>SHERATON GRANDE SUKHUMVIT</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>16</td>
<td>SOFITEL SO BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>17</td>
<td>SWISSHOTEL LE CONCORDE BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>18</td>
<td>THE GRAND FOUR WING CONVENTION HOTEL BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>19</td>
<td>THE SUKHOTHAI BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>20</td>
<td>THE SUKOSOL</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>21</td>
<td>VIE HOTEL BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
<tr>
<td>22</td>
<td>DUSIT THANI BANGKOK</td>
<td>HOTEL</td>
<td>5 stars</td>
</tr>
</tbody>
</table>

Regarding those which belong to international chains, the author wrote letters to the Human Resources Department of these hotels at their group level to ask for an interview with their top management. Hence, the data collected would be from a group perspective. About the independent hotels, the author wrote letters to the Human Resources Department of each hotel to ask for an interview with their top management. The author planned to collect the following data from the interviews:
Opportunities the free flow of skilled labours would bring to their hotel.

Challenges the free flow of skilled labours would bring to their hotel.

Their preparation for the free flow of skilled labours.

4. Findings

Regarding the international chain hotels, the author failed to collect data from them. Many of them did not respond to the request of the author for interviewing them. Two international hotel chains replied the author that they were not able to provide the author with the information required. The Assistant Manager of the Human Resources Department of international hotel chain number two told me on the phone that owing to they were not specialists in the area of AEC, they were not able to provide me any answer (personal communication, 18 April 2016). —We will not be able to provide you with the answers to your questions as it is still too earlier to make any comments since we have very low visibility of the outcome regarding AEC,‖ wrote the Assistant Manager of Talent and Culture, international hotel chain number one (personal communication, 22 April 2016).

The author was able to interview personnel of the Human Resources Department of three independents hotels. They were:

a. Director of the Human Resources Department, hotel number one on 19th April 2016
b. Cluster Director of the Human Resources Department, hotel number two on 25th April 2016
c. Senior Vice President of the Human Resources and Quality Assurance Department, hotel number three on 11th May 2016

4.1. Opportunities the free flow of skilled labours

4.1.1 To echo the tide of globalisation

Both the Director of hotel number one and Cluster Director of hotel number two saw the free flow of skilled labours could help increase the competitivenss of their hotels in the globalised world. —The AEC makes it easier for hotels to bring in skilled labours. It is not about cost saving. It is about increasing competitiveness in the globalised world,‖ said the Director of hotel number one. —We welcome staff from different nationalities. The free flow of skilled labours is a good chance to strengthen the competitivenss of the hotel in the globalised world. It is unwise for our hotel to close its door to these people,‖ said the Cluster Director of hotel number two.

4.1.2 To facilitate bringing in skilled labours with various skills and talents

All of them said that the free flow of labour could help bring in talented people. However, they aimed to bring in different talents. The Cluster Director of hotel number two was more interested in bringing in people with better English speaking skill. —In the past (before the inauguration of the AEC), we often have to work with agencies to bring in people. With the inauguration of the free flow of labours, we can recruit staff from these countries (ASEAN) directly. We would like to bring in staff who speak good English to interact with our guests. Our plan is to recruit 20 Filipinos mainly for the Food and Beverage Department,‖ said the Cluster Director. About the Director of hotel number one, apart from recruiting people with better spoken English competence, the Director would like to recruit those with specific professional skills. —If the free flow of labours further extends to other positions, we would like to recruit Myarmamese for the Finance Department. This is what they are good at. They can join us as Finance Managers,‖ said the Director. However, regarding the Senior Vice President of hotel number three, the Vice President did not see the necessity of bringing in people with good English skill. —I do not see reasons for bringing in those
with good English speaking skill. Guests do not expect Thai people to speak good English. They want to experience the Thai culture. We need managerial talents. We hope the free flow of skilled labours can give the hotel managerial force, said the President.

4.1.3 To spread the Thai hospitality

All of them saw the free flow of labours a good opportunity to spread the Thai hospitality.
—We believe in people. No matter where they come from, we have to train them the spirit of Thai culture. In fact, after training, many of them have become more Thai than the Thai people. They can then bring back what they have learned from us; particularly the Thai hospitality to their home countries, said the Cluster Director, hotel number two. —They (foreign labours) might go back to their countries one day. I see the importance for them to bring along with them the Thai hospitality back to the countries, said the Director of hotel number one. —Our vision is to export Thai hospitality to the world. This is the brand promise, said the Senior Vice President of hotel number three.

4.2 Challenges the free flow of skilled labours

All of them did not see challenges the free flow of labours would bring to their hotels. —We have to look at any single moment. Whatever challenges we face, we still find opportunities, said the Cluster Director of hotel number two.

4.2.1 Labour mobility is a common trend

They all remarked the labour mobility was a tradition in the hotel industry. —Labour mobility is a common trend in the hotel industry. Many of our staff went to work in the Western countries. Some of them worked for cruises or become a flight attendant. Very few of them left the hotel to work in ASEAN countries, said the Director of hotel number one. —Many of them (staff) leave the hotel after working in the same position for two or three years. I have been looking for someone to replace me for years. Unfortunately, many of them worked for two years and then they left, said the Senior Vice President of hotel number three.

4.2.2 Brain drain is a short-term influence

All of them said that the Thai people tended to return to Thailand after they have worked overseas for a few years. —They will come back. After two or three years, they will come back. This is the Thai culture. In the long run, we will benefit from their experiences and skills they gained overseas, said the Cluster Director of hotel number two. —Thai people are inward looking. Many of them do not want to work aboard. Many of them will come back to Thailand after a few years. Their families are here. The term brain drain has a very short-term influence to us, said the Senior Vice President of hotel number three.

4.2.3 Challenges of the free flow of skilled labour to Thai people

However, all of them saw the free flow of labour a challenge to Thai people. —Thai people do not speak good English, choose jobs, do not like working aboard, and are over protected by families. The AEC can be a big challenge for them because many of them have to compete with foreign labours for jobs, said the Director of hotel number one. —The free flow of skilled labour can make Thai people aware of their weaknesses so that they could improve themselves. It is an alarm bell to wake them up, said the Cluster Director of hotel number two. —Thai people are inward looking. They have to change their attitude. This (AEC) might be a challenge for them, said the Senior Vice President of hotel number three.
4.2.4 Young people are their common challenge

All of them did not see foreign labours a challenge to their hotels. However, they all considered today’s young people their common challenge. —Young people are not loyal to a company. They do not like working in hotels,‖ said the Director of hotel number one. —Young people are impatient. We have to think of ways to interact with them,‖ said the Cluster Director. —The so-called Generation Y or Millennium is impatient. It is difficult to keep them. We have to think of ways to engage and communicate with them,‖ said the Senior Vice President.

4.3. Preparation for the free flow of skilled labours

All of them are well prepared for the free flow of skilled labours.

4.3.1 To use the culture of their hotel to link foreign labours with their hotels

All of them saw the necessity of linking foreign labours with the culture of their hotels. —We are aware of cultural diversities of foreign labours. We have done some preparations such as providing them their local meals. However, I think the primary step is to link them with the culture of the hotel,‖ said the Director of hotel number one. —There are some cultural similarities among those from countries such as Thailand, Laos and Myanmar. However, we see the importance of binding them with our culture, a strong hospitality mindset and passion towards their job,‖ said the Cluster Director. —The staff have to be proud of themselves. They have to have a sense of pride. They have to know the heritage story (of hotel number three),‖ said the Senior Vice President.

4.3.2 Training and development programme

All of them mentioned that they had training and development programmes to let the foreign labours see their future with their hotels. —We’ll continue our way of training and developing staff. We have trainers in every department; new employee checklists; SOP; buddies assigned to each newcomer for 180 days and work-life balance programme…We are going to have a new hotel in Shanghai in the near future. All these will let them (foreign labours) see their future with the hotel. Working for the hotel is not a job. It is a career,‖ said the Director of hotel number one. —We develop people. We understand our people. We take care of them. We have our Learning Management System to develop them. We are expanding. The foreign labours will see their future with our hotel,‖ said the Cluster Director of hotel number two. —There are untapped resources in Thailand. We have our short-term and long-term Talent Development Strategy. We have to give our staff happiness, engagement, identity, and development,‖ said the Senior Vice President of hotel number three.

5. Discussion and conclusion

Regarding the replies from the two international chain hotel groups and those from the three independent hotels, it is quite obvious that the former does not concern the influence of the free flow of skilled labours. —International hotel chain does not care (the free flow of skilled labours),‖ said the Senior Vice President of hotel number three. The coverage and the labour force of international chain hotel groups are wide and plentiful. For an example, the Accor Group has 3900 properties worldwide, and they hire 180,000 employees (Accor, 2015). The existence of a large of a pool of workforce might help explain these international chain hotel groups do not need to concern the free flow of skilled labours as they can transfer their employees to any ASEAN countries where they have properties accordingly. Also, many of these groups are well presented in ASEAN countries. For an example, the Marriott Group has eight properties in Malaysia (Marriott 2016a) and 20 in Thailand (Marriott 2016b). These chain hotel groups have already a pool of staff working for them in many ASEAN countries.
Compare with the international chain hotel groups, the scale of the independent hotels is small. Hence, they are more sensitive to opportunities the AEC and the free flow of skilled labours will bring them. They consider the inauguration of the AEC and the free flow of skilled labours a stepping stone for them to grow globally and strengthen their workforce. However, the free flow of skilled labour also influences independent hotels in other ASEAN countries. Have these hotels prepared themselves for the free flow of skilled labours?

In many occasions, the top management emphasis on the importance of their staff. They said that they believed in the people, trained the people and supported the people. Their responses tell us that the hotel industry cannot survive without people; in particular, those people with a strong service mind. At a stage where technologies tend to replace manpower and create conveniences to people, their replies tell us in no ways can technologies replace people of the industry. The hotel is a people industry. The interaction of people in the industry with customers is extremely high. Hence, the Director, Cluster Director and the Senior Vice President are very well prepared for the free flow of skilled labour. However, regarding the other six industries which are open for the free flow of skilled labour, what is their preparation?

All of them see the uniqueness of Thai hospitality. They care about the spreading of the spirit of Thai hospitality overseas. This intention might stem from the fact that they are Thai companies and that they believe it is their mission to spread the Thai culture overseas. However, do the international chain hotel groups care about the spreading of the Thai hospitality overseas?

The findings tell us that the independent hotels do not see the free flow of skilled labour will bring them any disadvantages. However, they all see the challenges the free flow of skilled labour will bring to the Thai people at large. They hope that the free flow of skilled labour can make Thai people aware of and improve their weaknesses. However, does Thai people in general aware of the free flow of skilled labour?

The findings can act references to those organisations which are excluded from the current free flow of skilled labour. First, those multi-national companies might not concern about the free flow of skilled labour. However, organisations which are of medium and small scales have to prepare themselves better. Taking the replies of independent hotels as references, the free flow of skilled labours is not about getting cheap labours. It is to bring them a pool of talents so that they can select these talents according to their strengths.

Hotels industry is a people industry. The interviewees see the essentialness to create a strong culture to link foreign labours with their hotels. Also, they realise the importance of setting up training and development programmes to develop the labours. However, according to their responses, apart from training the labours to interact with guests, the programmes are to let them see their career path with the hotels, and ask them to work towards the path. These suggestions imply to those organisations which are yet included in the free flow of skilled labours that all in all, people is most important. Even though these organisations are not in the service industry, it is unwise for them to underestimate the importance of people development.

After all, this paper has several limitations. First, while many types of hotels exist in Thailand, the study focused only on five-star hotels. Second, the sample size is very small, so the views may not be truly representative.
References


Association of Southeast Asian Nations (1987). ASEAN Economic Community Blueprint. Jakarta: ASEAN


Exploring potential antecedents of job involvement: the successful case of Haidilao
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Abstract
The service quality of the restaurant industry plays a vital role in customers’ purchase intention. However, the service quality of restaurants is constantly irregular. Employee job involvement is important for restaurants’ service quality, particularly for frontline employees. The service of frontline employees directly influences the service quality and company image perceived by customers. Currently, a few studies on restaurant service quality are conducted from the perspective of employee job involvement and considerably focus on the corporate level. In addition, most of the studies on job involvement used questionnaire survey as research method, thereby lacking the basic descriptive exploration of job involvement that could offer an overview of the potential antecedents of job involvement. This study based on this gap takes Haidilao in Canton, China as case to explore the factors affecting employee job involvement. The qualitative research method is adopted, including the observation and interview methods. In addition, a comprehensive model is used to analyze the potential antecedents of job involvement. Results of the data analysis show that when employees have a high sense of responsibility, mature work motivation, and positive work attitude; when the job is complete with rich content and is challenging; and when organizations can provide enough support to employees, encourage employees to innovate, and provide timely feedback to employees, then cultivating employees with high job involvement becomes easy. In general, findings of this study could enhance the theoretical knowledge, thereby adding substantial knowledge to the research on employee job involvement in the service industry. In addition, this study could offer theoretical reference and direction for restaurant enterprises’ operation. Finally, further studies and the limitation of this study are also provided.

Keywords: hospitality, restaurant, qualitative method, job involvement, comprehensive model, Haidilao

1. Introduction
Job involvement is an integral and growing concept in organizational behavior (Allam & Habtemariam, 2009). It can be linked with important work outcomes, such as being committed to their employer, heightened satisfaction from the job, increased work effort, reduced absenteeism, increased organizational citizenship (i.e., going above and beyond what is required at work), and reduced turnover intent and turnover (Blau & Boal, 1989; Brown, 1996; Chen & Chiu, 2009; Diefendorff, Brown, Kamin, & Lord, 2002; Elloy et al., 1992; Rabinowitz & Hall, 1977). Recently, job involvement is always the focus of attention of psychologists, management scientists because of its greater relevance to overall organizational functioning, employee's performance, needs and quality of working life (Allam & Habtemariam, 2009). So job involvement is very crucial for organization. As for service firms, existing researches show that having a better understanding of employees and factors which affect their focus on the services they provide to others is critical for restaurant managers as they hire and train employees (Dienhart & Gregoire, 2016). As we know, service quality of restaurant industry plays a vital role in customer’s purchasing intention (Guo-Jun et al., 2014). However, service quality of restaurant is always irregularity. Employee job involvement is important
for restaurant’s service quality, especially front-line employees. Their service directly influences the service quality and company image that customers perceived. Therefore, exploring the potential antecedents of job involvement for restaurant employees is important while current researches on this area are very limited. What’s more, almost all the studies of job involvement use questionnaire survey as research method to research the relationship of limited variables, the basic descriptive case study is extremely rare (Jing & Jian-Qiao, 2007; Yang-Yang & Bing-Chun, 2013). So it lacks the full picture of potential antecedents of job involvement. For this reason, the study would be conducted from the perspective of interaction of employees with their surroundings.

And for the case of this study is Sichuan Haidilao Catering CO., LTD, a private enterprise focusing on operating Sichun-style hot pot, which is the integration of catering, hotpot seasoning product, franchise chain, materials distribution, and technology development. Since the company established in 1994, it always adheres to the philosophy of “service first, customers first”, regards innovation as its core, changes the traditional, standardized and simple service, advocates personalized service and dedicated to provide customers with pleasant dining experience. On management, the company proposes the value of “change the destiny by our own hands”, creates a fair working environment for staff, implicates the humanized and friendly management mode, and improve employee value. Under the guidance of Haidilao spirit, based on two paths of “enterprise and employees” and “employees and customers”, the company focuses on the implementation of “internal marketing” and “interactive marketing” strategy, supplemented the evaluation mechanism of employee satisfaction and customer satisfaction. All of these create the success of Haidilao mode. Then, it has become the successful example followed by China’s catering industry and its success has been called as “Haidilao Model”. The secondary data shows that Haidilao has a relatively perfect training, management, and incentive system and clear corporate culture.

Based on our observation, the service process of employees from Haidilao is most prominent in service industry and their service experience is typical. Throughout the business hours, employees of Haidilao can keep high working enthusiasm for long time, which is not influenced the length of service time or the number of customers. During their service, employees interact with surroundings and burst passions constantly, which reflects high level of job involvement for employees. So, what are the potential antecedents that affect employee job involvement and how do these factors drive so high level job involvement in Haidilao? This problem is worth further discussion. The study would focus on this question and use qualitative method to give a comprehensive understanding of factors affecting job involvement, using Haidilao as study case which is a famous Chinese restaurant. Generally, findings of the study could enrich the theoretical knowledge, adding more knowledge to the research about employee job involvement who works in service industry. As well, the study could offer theoretical reference and direction for restaurant enterprises’ operation.

2. Literature review

Concept of job involvement

Job involvement is an important factor in employees’ personal growth and satisfaction in their workplaces and considered key to their motivation and goal directed behaviors (Argyris, 1964; Lawler, 1986; Pfeffer, 1994). Early in the development of the concept of job involvement, there was confusion over how to define it (Kanungo, 1979). Job involvement was first introduced by Lodahl and Kejner (1965), who conceptualized it as “the degree to which a person is identified psychologically with his work, or the importance of work in his total self-image” (p. 24). What’s more, Lodahl and Kejner (1965) also saw job involvement as the result of how “work performance affects a person’s
self-esteem‖ (p. 25). Later, Lawler and Hall (1970) contended that job involvement was the —psychological identification with one’s work —the degree to which the job situation is central to the person and his identity (pp. 310-311). Based on previous study, Kanungo (1982) thought the scope of existing definition of job involvement is too broad to accurately measure it. So Kanungo (1982) distinguished job involvement and work involvement, then he defined job involvement as an involvement in specific work situation which based on individual perception of whether current job meet his/her needs. As for work involvement, Kanungo (1982) regarded it as an involvement in general work situation, which refers to the importance of job in people’s life and it is the product of culture constrain and social effect. The series of published works of Kanungo (1979, 1982a, 1982b) helped solidify the conceptualization of job involvement as a cognitive identification with the job which was generally utilized by contemporary researchers. For instance, Paullay, Alliger, and Stone-Romero (1994) defined job involvement as when an employee —is cognitively preoccupied with, engaged in, and concerned with one’s present job (p. 224). And as pointed out by DeCarufel and Schaan (1990), —an individual with a high degree of job involvement would place the job at the center of his/her life’s interests. The well-known phrase ‘I live, eat, and breathe my job’ would describe someone whose job involvement is very high (p. 86). Nancy et al. (2013) also regarded it as the psychological bond between the person and his or her job (Hogan et al., 2013).

All these and other current definitions of job involvement focus on the cognitive identification a person has with his or her job. It is a positive psychological states to work, characterized by vigor, dedication and concentration (Dorenboschl et al., 2005). It’s always presented in the following behaviors: employees concentrate on their work, make great efforts to their own work tirelessly and voluntarily, face every work difficulties with patience, and have the courage to accept all kinds of challenges in the work (Rui-Juan et al., 2014). It is very much clear that with the socialization process, certain work values are injected into the self of a person that becomes the basis of his attitude towards job (Allam & Habtemariam, 2009). In this study, the definition of job involvement is regarded as a cognitive identification with the job.

Past empirical research has indicated that workplace factors affect the work attitudes (Lambert et al., 2015). Work attitudes have long been important indicators for managers and researchers in evaluating whether one is motivated to work (Chung-An, 2012. But job involvement is different from work attitude. Generally, work attitudes include job involvement, job satisfaction, and organizational commitment (Eric et al., 2015; Chung-An, 2012; Lin-Ying et al., 2014). As behavior factors of work attitude, job involvement is the main factors of affecting organizational effectiveness and employee work motivation and behaviors (Jing & Jian-Qiao, 2007). There are many researches on job involvement abroad, but less study about it in China, comparing with other two overt behavior variables: job performance and organizational citizenship. In addition, there are more researches on job satisfaction and organizational commitment than that on job involvement (Jing & Jian-Qiao, 2007; Jin-Bo et al., 2006). So it is clear that research on job involvement is too rare and it needs more attention of scholars. In this study, it mainly focuses on job involvement specifically, instead of work attitude.

**Researches on job involvement**

Existing researches show that job satisfaction, stress, commitment, job authority, job enrichment, task identity, mental health, age, tenure, job anxiety, quality of life and burnout significantly relate with job involvement (Allam & Habtemariam, 2009). Lambert (2008) reported job involvement had significant positive relationships with work–family conflict, job satisfaction, and organizational commitment. However, for turnover intentions, it had a negative impact (Lambert & Paoline, 2010;
Blau & Blau, 1989). And some researches in business and industry settings have shown positive associations between skill variety, task significance, and job involvement (Brown, 1996). Taken together, there are multiple workplace factors that can affect the work attitudes, including individual (e.g., gender and educational level), organizational (i.e., workplace factors), and environmental (e.g., community factors; Cooper et al., 2014). In addition, some researchers used the concept of high-performance work systems to refer to a set of best practices, including selectivity, comprehensive training, internal career opportunities, performance appraisals, empowerment, and incentive pay (Pei-Chuan & Sankalp, 2016). Their results showed that high-performance work systems directly influenced employee attitudes (Appelbaum et al., 2000; Chang, 2005; Guest, 1999; Lawler, 1986). So, as a part of work attitude, job involvement should be also related to these factors.

Looking at the above factors, we could divide them into two types generally: potential antecedents of job involvement (Lambert & Paoline, 2012; Hassan, 2014) and potential consequences of job involvement (Paoline & Lambert, 2012).

In the researches of exploring potential antecedents, Chung-An’s (2012) research showed that higher levels of rule constraints (i.e., red tape and personnel flexibility) in the public sector undermine manager’s work attitudes. He also emphasized that advantageous compensation and merit protection would attract individuals looking for job security, abundant benefits, and pension plans (Chung-An, 2012). At the same time, Eric and Eugene (2012) found that formalization, input into decision making, and administrative support all had positive associations with job involvement (Lambert & Paoline, 2012). Based on job characteristics model, work environment factors faced by employees in their jobs influences their job attitudes, intentions, and behaviors (Chen & Chiu, 2009; Hackman & Oldham, 1976). Generally, the work environment is complex and has many different dimensions (Lambert & Paoline, 2012). It would play positive role in job involvement (Ouyang & Hsieh, 2010; Zhu & Fang, 2016). Additionally, when employees perceive they have an active role in important organizational activities and have opportunities for their voices to be heard, they are likely to become committed to their organization’s goals and more involved in their work (Hassan, 2014). It shows the importance of employees’ participation in decision making. Besides, previous study results show that perception of a performance contingent reward system positively affects professional employees’ job involvement (Hassan, 2014). However, the degree to which performance contingent rewards have a positive impact on employees’ job involvement may actually depend on a number of situational factors, including the availability of adequate resources and employees’ confidence and trust in the organizational procedures through which recognition and rewards are allocated in the organization (Bowman, 2010; Hassan, 2012; Kellough & Lu, 1993; Kellough & Nigro, 2002; Kellough & Selden, 1997). Furthermore, other existing researches show that management system (Ping-Huan et al., 2011), welfare policies (Gang et al., 2012), corporate culture (Wallach, 1983; Hsing-ER, 2011; Gang et al., 2012), working environment (Bunce & West, 1995; Scott & Bruce, 1994; Yu & Li-Li, 2014), recruitment and training (Ding-Guo & Jie, 2014; Ding-Guo & Dan, 2014), and leader behavior (Ding-Guo & Ya-Fang, 2013) influenced employees’ job involvement.

As for the potential consequences of job involvement, it can be linked with important work outcomes, such as being committed to their employer, heightened satisfaction from the job, increased work effort, reduced absenteeism, increased organizational citizenship (i.e., going above and beyond what is required at work), and reduced turnover intent and turnover (Blau & Boal, 1989; Brown, 1996; Chen & Chiu, 2009; Diefendorff et al., 2002; Elloy et al., 1992; Rabinowitz & Hall, 1977; Ping-Huan et al., 2011). Diefendorff et al (2002) found that higher levels of job involvement often lead to higher levels of job performance. As a positive psychological state, job involvement is found that it could influence employee’s behavior and encourage their enthusiasm and initiative (Rui-Juan et al., 2014).
So it is very important of job involvement for organization development. In this case, understanding potential antecedents of job involvement is the first step.

In this study, it plans to explore the potential antecedents of job involvement in restaurant industry. There are very little researches on service industry, especially in restaurant. But existing study in this area show that having a better understanding of employees and factors which affect their focus on the services they provide to others is critical for restaurant managers as they hire and train employees (Dienhart & Gregoire, 2016). Job satisfaction, job involvement, and job security do tend to predict customer focus for restaurant employees (Dienhart & Gregoire, 2016). Therefore, exploring the potential antecedents of job involvement for restaurant employees is important while current researches on this area are very limited. What’s more, almost all the studies of job involvement use questionnaire survey as research method to research the relationship of limited variables, the basic descriptive case study is extremely rare (Jing & Jian-Qiao, 2007; Yang-Yang & Bing-Chun, 2013). So it lacks the full picture of potential antecedents of job involvement. Later, the study will use qualitative method to give a comprehensive understanding of factors affecting job involvement, using Haidilao as study case which is a famous Chinese restaurant.

### Job involvement theory models

Since the definition of job involvement was put forward, some scholars have explored its connotation constantly and try to set up a new theoretical model using relevant theory. The existing theory of job involvement models can be concluded to three types: expectancy model, motivational model and comprehensive model.

- **Expectancy model**

  Expectancy model was first suggested by Vroom (1964) in his book Work and Motivation. He believed that whether an action could meet individual’s needs depended on two main variables: One is expectancy, referring to individual perception of all possible results of the action. The other one is valence, referring to the extent of the action meeting individual needs. Vroom (1964) used formula F=V*E to describe expectancy theory framework in his work. Thereinto, F (force) meant the inner motive power, embodied in the individual level of job involvement. V (valence) referred to the individual value judgment of work results. And E (expectancy) represented the individual expectation of achieving the goal, which also on behalf of the individual expectation of whether reward and requirement from work could be satisfied. Given upon this formula, it is clear that F is proportional to V and E. The greater the values of V and E are, the higher the individual job involvement level is. But if the value of V or E is very low, the level of job involvement may be very low.

- **Motivational model**

  Kanungo proposed job involvement motivational model in 1979. He integrated the view of job involvement and job alienation from psychologists and sociologists, and explained different form of job involvement from the perspective of individual behavior and casual conditions. In this model, when current work can meet the individual needs and expectations significantly, the individual will generate job involvement, which produces cognitive identification and universal perception of work. On the contrary, when the work can't meet individual needs and expectations, the individual can produce job alienation and form the cognitive status of psychological distance for work. According to this model, Brown (1996) found that managers with external demand had higher job involvement than those who attached great importance to internal demand on specific work. While on general work, there is no difference in job involvement between these two groups. So it shows that the incentive or
reward measures provided by general work organization is better to meet the people who prefer to the external demand (Brown and Leigh, 1996).

- Comprehensive model

Rabinowitz and Hall (1977) integrated previous scholars researches on job involvement and put forward comprehensive model, summarizing the factors that affect individual job involvement as three kinds. First one is personal characteristics, which includes gender, age, marital status, education, work experience, personality type, work value, high-level demand intensity and etc. The second one is work situation, which includes job characteristics, leadership behavior, decision-making participation pattern, organization size, position and etc. And the last one is interaction effect of personal characteristics and work situation. According to social exchange theory, some employee needs can be met only by organization, and employee’s psychology and behavior are restricted and influenced by organizational behavior. Rabinowitz and Hall (1977) thought that job involvement is the result of interaction of personal characteristics and work situation, and the result of job involvement is presented as job satisfaction, job performance, turnover, and etc. (Fig.1).

![Fig. 1. Rabinowitz and Hall's Comprehensive Model.](image)

In the above three kinds of job involvement models, expectancy model is more controversial. Many scholars have criticized expectancy model raised by Vroom (1964), and the view of Campbell and Printchard (1976) is the most representative. Campbell and Printchard (1976) pointed out that expectancy model assumed that individual was a rational economic man who could always pay attention to surroundings and do an assessment, and then make the most favorable decisions. But in fact, not all individuals can be so rational for the way of thinking or ability limit. Therefore, the hypothesis of Vroom's expectancy model is flawed. In addition, job involvement motivational model proposed by Kanungo (1979) focuses on explaining job involvement from the perspective of individual behavior and casual conditions. Its explanation scope is limited. In contrast, comprehensive model, put forward by Rabinowitz and Hall (1977), can contain larger range. After comprehensive model was put forward, many studies of job involvement were conducted under its framework. In this study, we will use comprehensive model to analyze the specific factors which impact job involvement.

Based on previous studies, we can find there are fewer researches on potential antecedents of job involvement in restaurant industry. It has difficulty providing theory support for promoting employee job involvement and then to improve employee performance and work outcome. This needs more research. Besides, the high level of employee job involvement of Haidilao is very famous in restaurant industry. So why can they have so high job involvement for their employees? We will explore this question and definite the specific factors for each aspects of comprehensive model. The research will enrich theory of job involvement and give successful example and direction for other service firms' operation and employee management.
3. Research design

Data collection

The cases of the study were two Haidilao restaurants in Guangzhou, Guangdong Province, China. The food and beverage culture of Guangzhou is famous in China. It attracts many entrepreneurs to come here for opening and operating restaurants. So there are also some restaurants of Haidilao in Guangzhou. The restaurants in Guangzhou have representative of the study. During the period of this study, there were only two restaurants of Haidilao opened in Guangzhou. So we selected both them as our cases, one was located in Beijing Road and the other one was located in Kecun.

The paper adopted qualitative research method to explore the question. The research materials were collected by semi-structured interviews and participatory observation. In the late of April, 2014, we selected two the restaurants of Haidilao as our place of interview and observation. The survey was conducted in their spare time and busy hour respectively. When they are idle, interviews of employees will be conducted and observation will be regarded as complementary survey. But if they are busy, we will give the priority to participatory observation. In addition, there are still some in-depth telephone interviews for their leadership. Eventually, twelve employees were interviewed, who were all the young employees with the age of 20-30. All of them are the grass-level service staff and middle level managers. Among them, there are five male employees and seven female employees. In the process of interview, the interview time for every interviewee is about 30 minutes.

Data analysis

During the survey, we recorded the content of interview using voice recorder after getting allowance from respondents and transcribed the interview recording into written text when we finished the interview. When all interviews finished, the research made content analysis for the interview data. Through content analysis, the factors influencing employee job involvement were extracted. And then summarized these factors based on the comprehensive model proposed by Rabinowitz and Hall (1977). The original comprehensive model divides these influence factors into three categories: The first one is personal characteristics, the second one is work situation, and the last one is the interaction of personal characteristics and work situation. In this article, the focus of research is specific factors not the interaction effect. So, personal characteristics and work situation are the research priorities. As for work situation, this dimension is further divide into two sub-dimensions: job characteristics and organization environment (Wang et al., 2011). According to previous research, job characteristics mainly include richness of job content, importance of work, integrity of task, and autonomy and feedback of job (Wang et al., 2011). It reflects the relationship between individuals and specific work, and this relationship depends on individual’s perception in the process of work. And organization environment reflects the relationship between the individual and organization, including the size of organization, development prospects, management system, enterprise culture, working atmosphere, and the support for employees from organization and superiors (Wang et al., 2011). This subdivision could help us to analyze the influence factors of job involvement more clearly and facilitate enterprises for reference. In conclusion, the existing comprehensive model was adjusted and concluded the following model (Fig.2). Later, findings of the research would be showed based on the new model. Besides, the article analyzed the referenced quotation, coding S on behalf of the employees at the grassroots level, F on behalf of the foreman and M on behalf of the managers. Finally, there would be a discussion of connecting the findings with previous researches.
4. Finding

Personal characteristics

- Emphasis on the quality of staff

We have an overview of Haidilao recruitment requirements through our interviews. When recruiting new employees, Haidilao emphasizes on their quality and requires them not only to be groomed but also to be hard-working. Haidilao will arrange employees which are new-recruited for appropriate positions according to their personal characteristics. Haidilao believes that the requirement of professional skills of service work is not quite demanding and that the staff’s basic service ability can be improved through staff training in a short time. However if employees want to keep their passion for service, they must have hardworking character and be willing to consider for others. Therefore, the quality of staff is the foundation of improving job involvement.

\[M1:–\text{We will recruit some more outgoing employees…..We mainly focus on whether employees are willing to work hard or not}\]
\[S2:–\text{After interviews, he will figure out which position you will be suitable for. Then you will have 15 days intern to check which position you will be suitable for and he will arrange you to do that}\]

The manager of Haidilao suggested that the criterion of Haidilao recruitment is mainly —whether employees are willing to work hard and serve for customers or not, which means that Haidilao will consider employees’ working motivation to be mature or not, working attitude to be appropriate or nor and responsibility sense to be strong or not. Besides, Haidilao prefers to recruit out-going employees because catering industry requires the employees to be more outgoing when serving customers, which means that the quality of staff will affect their future job involvement. Therefore, service-oriented enterprises should emphasize the recruitment, through which they can judge interviewees’ quality reasonable recruitment process, and select the more suitable employees.

- Appropriate working attitude

Besides, working attitude of the staff including the approval of the job and the enterprise and loyalty to the enterprise will affect job involvement. Haidilao managers think employees have a high loyalty to Haidilao and a high involvement in their job, so they won’t quit their job easily. Although some of employees think their sense of belonging is very strong, a few interviewees suggest they will leave Haidilao if they have better development opportunities, whereas managers have a cognition bias against their employees. But there is no deny that staff’s cognition and attitude towards their enterprise and job will affect their job involvement and future development.
S1: They are seldom poached. Our company cultivates our own employees and some
companies can’t cultivate their employees and know to poach other companies’ employees
only, which is very shameful. The reason why we stay in Haidilao is that Haidilao seems
like a big family. We have brothers and sisters in this family, so why do we want to leave?
S2: This will definitely be. If having a better opportunity we will quit the job in a hundred
percent, because we are not willing to stay up too late resulting in damaging our bodies.
The biggest unsatisfied point is that the working time is too long. Everything is pretty good
except that.

Therefore, this case shows that the quality and working attitude towards their job and company of
staff will affect job involvement. In general, when employees have appropriate working attitude,
mature working motivation and positive cognition about their job or their company, they will have a
higher job involvement easily. Besides, a few employees mentions some benefits about families and
marriage provided by the company, which will affect their job involvement, meaning that families and
marriage is very important for the staff and one of factors that will affect the job involvement of the
staff.

Job Characteristics

- Higher job autonomy

The employees of the companies use the goal ‘working for myself’ to keep themselves enthusiastic.
Also the sense of achievement during the work can also affect the level of effort. Meanwhile, some
autonomy can make the employees have the feeling of a host and therefore, make them have the sense
of working achievement. And these can improve the employees’ working input. The managers have
some rights to deal with the special occasions, and have more importance to decide some of the
things. But the normal employees can also make the bill free or discounted under some special
occasions and only report the reasons. This meets the esteem need from Maslow’s hierarchy of needs,
motivates their self-recognition in the work, improves work enthusiasm, and improves work input. By
giving different levels of autonomy, the food and beverage companies can improve their work
enthusiasm, improve the efficiency while dealing the emergency events, and therefore improve the
company’s performance.

M2: ‘Generally, to most of the employees, while dealing with the emergency events, we’ll
try to solve it first. We’ll only report that to upper managers if we cannot solve it.
Sometimes the demands of the guests could be different from what we served. So it also
depends on how we operate. If we operate it well and the advice from the guests is
good, then we are willing to accept the advice and thank to the guests. However, if the
guests want some massage chairs here to make it like a hair salon, and we have no way
to operate it like that, then we won’t accept.’

- Clear work evaluation and reflection

Haidilao has clear work standards and high requests on the work. It has clear principles about work
enthusiasm both about the employees themselves and the company. It has a reward and punishment
system and specific employees to evaluate about the reward and punishment during the work.
Besides, Haidilao also does the best to encourage the employees to give the innovate advice. It also
has specific employees to evaluate this part and give rewards to the employees whose advice is taken.
It has even more strict rules to the managers. Their pays are related to the guests so that they can be
motivated.
F: Most of the rules are about this part. Since guests are our bosses, we have to follow some certain standards while directly serving guests. That's the spirit of Haidilao Hot Pot all the time... If the managers made the mistakes, they would be punished even harder. If the general employees made mistakes, they would also be punished, but not very hard. Since if we make a mistake, it would affect the whole organization. However, if they make a mistake, it will not have a great influence.

Haidilao also have rules about service enthusiasm. It let the employees have a clear recognition of service enthusiasm. During the service process, the employees have to show the enthusiasm that is ruled by the company. If not, they will be punished. This made the employees keep enthusiastic during serving the guests. Based on service attitude theory, the employees' service acts will not only affect their service quality directly, but also justify the affection from employees' role conflict, job satisfaction, and emotional belongingness to their service quality. These rules can benefit the employees' recognition to the job's importance. The reward is the immediate reflection to the job performance. The encouragement of the employees' innovation makes service not only a simply and repeat contents, the employees can find the problems during the service process and solve them, which make the job contents richer.

- Positive work significance

Haidilao tries to grow the employees' spirit of willing to help others, and to make them find the goals on the work. This also influences employees' job involvement. Based on Herzberg's two-factor theory, the factors that can bring positive attitude, satisfactory, and encouragement are called incentive factors'. These are the factors that can satisfy individuals' personal fulfillment need, including accomplishment, appreciation, challenging job, increasing job responsibility, and the opportunity of growing and development. The growth from the company to the employees' spirit also satisfies the individuals' need of self-fulfillment. The employees can find the goals of the job so that they will have more power to work. By the positive affection from job to live, the measures of Haidilao are really useful for other companies to learn. The growth of the employees can not only satisfies the need of self-fulfillment, but also helps the development of the company.

S1: I'm a doorman. My job is to welcome the guests inside to have a meal. So I have to be very welcomed to the guests and let them feel the best service. I feel this can make me a person that is more willing to help others.... So now I have different life attitude. Since I can find goals and dreams on the job, I have more power to go on my life... I'm very willing to work at Haidilao. Before I worked here, my life is unclear. But now I have more power... Even there is shortcomings, compared with other hot pot companies, Haidilao is much better.

Organization Environment

- Harmonious working atmosphere

The integral atmosphere of the enterprise, colleagues getting along with each other, interactions with guests make the employees maintain a good mood to serve the guests. The frequent interaction between the employees of Haidilao makes the employees get along with well, and makes them look like a big harmonious family. When the individuals work, they will spontaneously form the consistency rules. And groups also affect the employees’ work enthusiasm. Most of the employees said the working enthusiasm will be affected by the work atmosphere, not training or rigid requirements. Their working enthusiasm is infected by the working atmosphere. During the interview, we observed that the interaction between employees were frequent, the staffs would communicate
everything of job when they shift the duty. Besides, some employees will cheer up the colleagues with the simple chat. And when employees are working, they will also tell each other the announcements and service warm prompt, etc. For example, for the customers with children, employee would tell other colleagues and says: 'The customers of that table are with children and the children are playing in the gaming zone, please look after the children when you are free.' Haidilao staff said that although the pressure is high, in order to obtain the collective identity, they can only remain relatively consistent working state. Sometimes, working time is longer, but they will feel time passed quickly when they are busy with their work and do not feel hard. In addition, personal emotions and working pressure is inevitable. Therefore, the company will occasionally organize group activities to relieve pressure of employees.

M1: _It is mainly a team and the employees will influence each other. When I am looking at the other employee service for the guest warmly, I will feel uncomfortable if just standing beside, you are slowly become very bright and active._'

S4: _Because there is such an atmosphere, we can interact with the guests, and do not feel inferior being a waiter here, and the atmosphere between the colleagues, and between the colleagues with guests are very happy._'

S7: _Because in our company.... It is certainly tired, but mainly because our company’s the atmosphere is good, the tire also doesn't matter._'

According to _social needs_ of Maslow's hierarchy of needs theory, people have a demand of friendship, love and the subordinate relations, meeting their needs will produce incentive effect, which make staff work more investment. Scholars Yangyang Yu and Qubing Chun (2013) suggested that employees' job involvement linked to the organization or team, in turn, put enthusiasm into the working organization. So the team relationship is very important. Based on social needs, everyone wants to get the mutual concern, and emotional needs are more meticulous than physiological needs, so the relationship of the people also can create the incentives for employees. In daily work, in order to maintain the consistency with groups, the employees will automatically adjust their working status. However, Haidilao's employees always got along with each other and interacted frequently, and it formed harmonious and happy working atmosphere and the good relationship among employees. The good working atmosphere is beneficial to improve employees' job involvement. And in this working atmosphere, the whole employees' working enthusiasm will be improved.

- Clear and definite management system

Haidilao also have rules about service enthusiasm. It let the employees have a clear recognition of service enthusiasm. During the service process, the employees have to show the enthusiasm that is ruled by the company. If not, they will be punished. This made the employees keep enthusiastic during serving the guests. Based on service attitude theory, the employees' service acts will not only affect their service quality directly, but also justify the affection from employees' role conflict, job satisfaction, and emotional belongingness to their service quality. These rules can benefit the employees' recognition to the job's importance. The reward is the immediate reflection to the job performance. The encouragement of the employees' innovation makes service not only a simply and repeat contents, the employees can find the problems during the service process and solve them, which make the job contents richer.

When Haidilao look for their new staff, they pay much attention to the employee's personal characteristics, selecting the people who are cheerful, active, hard-working, and with good service consciousness. After recruitment, the company also lays emphasis on training. All new staff will be trained for one month in Shenzhen with the focus on delivering service consciousness, corporate
culture, ideas, value, and so on. Job involvement is greatly derived from the moments of serving for customers. Only if you have good service consciousness and regarding service as a fun, then you can devote yourself into the service work. What's more, Haidilao attaches importance to employee’s enthusiasm when they serve customers. So delivering service consciousness, ideas, and culture is beneficial to improve employee’s service enthusiasm and job involvement. Later, the company will distribute new staff to each restaurant of Haidilao and these staff will be taught by masters (the company adopts tutorial system to cultivate new staff). And then, each employee will be trained in the form of meeting and evaluated through regular test. Evaluation can supervise and urge employees to keep high quality service. In order to get better evaluation result, employees are more willing to keep high level job involvement and improve work enthusiasm, as to meet the needs of recognition and respect.

F: _When new staffs come here, trainers will train them first and then distribute them into each store. In each store, masters are responsible for their next training teaching them to work better._

S6: _Usually, we will have an examination for you in 15days before you are on work. We will give you a test to evaluate your understanding of these processes, your service consciousness, and so on. If you don’t pass then you need to make-up, but if you pass then you can mount guard directly._

As for employees' employee welfare, Haidilao pays very high attention to this. Compared to other catering firms, the benefits, salary and other welfare of Haidilao are much better. A series welfare has an incentive effect on their staffs. What’s more, material and spiritual incentive effect are more significant. To be specifically, the accommodation environment is good, the salary system and stock system are very attractive, and the company will share stock bonus to employees. All of these solve some problems for married employees. Its superior social welfare is a kind of effective incentives of attracting more talents to stay at Haidilao. Meanwhile, the good welfare is the necessary item of promoting employee satisfaction and job involvement. With the good benefits, staffs will feel more sense of belonging and responsibility. Then they will put more enthusiasm into work and provide better service for customers. The superior welfare system reflects the company's respect and attention for employees. According to employee engagement theory, company pays more attention to employee, employee prefers to put much more personal feelings, physical strength, and time to work, which is the important factors affecting employee’s subjective initiative in the process of service. And the behaviors of Haidilao also meet the higher level needs of respect for employees. It’s the advantage of Haidilao in managing talents. Other service firms should learn it. Company talents as the pillar of the service industry should be given enough respect and attention.

S1: _Haidilao’s concern for employees is very good. For example, staff meals are very delicious which is better than the hot pot restaurant where I worked before. And in our room, we can use free wifi, TV, washing machine, quilt, and some other stuff……If we work here for long time, our parents and children will have living allowance. Although it is not much, we really feel respect and attention from company_

The promotion rules and regulation in Haidilao is clear and the promotion competition among employees is fierce but fair. The development opportunity is equal for everyone. Individual hard-working is crucial for their promotion. Their job involvement, the level of endeavor, and responsibility are corporate's evaluation standards, which has incentive effect on employees’ work. Under this motivated promotion system, employees have definite targets and strong motive power. Every employee grows from the basic level and improves themselves step by step. All of them believe that only endeavor can create success. At the same time, the company provides different career
planning for different employees based on their personal characteristics and offers professional train of career planning. According to employee incentive mechanism, this kind of promotion system can maximum employee's organization commitment and allow them to express their positivity and creativity. And in view of employee engagement theory, the competition in Haidilao can make employees keep positive emotion and state, then show more energy and focus on dedication. Because most of service enterprises take care of work experience, many employees need to develop from basic level. So, it is very important for catering firms to offer a fair environment of competition to employees. It can improve employee job involvement.

F: _The promotion opportunity is relatively equal in Hidilao. I can know where I can reach in the future. Haidilao can give us a specific way and even if it is very small, but it is better to have a clear direction. And that is not same for all company as for there are so many regulations. All of us think here is more fair than others.’

S3: ‘It is not obvious .Because we the promotion opportunity is a little small. And really, just only you dedicate more and more thins. Look at me, my promotion needs at least three to achieve.’

M2: _yes, the managers here all developed from basic level work and their evaluation focuses on individual performance and endeavor degree.’

Lastly, Haidilao has a clear and definite reward and punishment system, adopting real-time system to evaluate and carry out reward with material things usually. And the company uses s series positive incentives and negative incentives to guide and regulate employee's behaviors. For the behavior they want to see, Haidilao uses reward to reinforce, which is called positive inventive. While for the behavior they don’t want to see, the company uses punishment for constraint, namely negative incentives. These two supplement each other to promote the realization of the goal of enterprise. In Haidilao, employee compensation is tied together with the guest. Income produces work motivation, so employee individual compensation is an effective way of economic incentives to maximize employee job involvement. And from the interview, most employees have a greater response on material reward than spiritual reward. It may be for the most interviewees are the employees at the grass-roots level which have higher requests for material needs. The system of reward and punishment in Haidilao has a good reference for other service enterprises. The real-time system of reward reflects the recognition of employee's work which could improve their job achievement in time, as to improve employee job involvement. But when companies reward their staffs, they should clear and definite employee’s basic needs. If employees are more sensitive to material reward, then to strengthen the material reward will be an effective incentive measure.

F: _……We as managers, if we do anything wrong, we will be punished badly. While if the staff who are at grass-roots level make mistake, they will also be punished but not too strict. Because the wrong things we do will affect the entire organization but they won’t.’

S6: ‘If we do a good job, the company will reward you by cash generally and give you the reward face to face……’

- Good corporate culture

Haidilao tries to grow the employees' spirit of willing to help others, and to make them find the goals on the work. This also influences employees' job involvement. Based on Herzberg's two-factor theory, the factors that can bring positive attitude, satisfactory, and encouragement are called _incentive factors_. These are the factors that can satisfy individuals' personal fulfillment need, including accomplishment, appreciation, challenging job, increasing job responsibility, and the opportunity of growing and development. The growth from the company to the employees' spirit also satisfies the individuals' need of self-fulfillment. The employees can find the goals of the job so that
they will have more power to work. By the positive affection from job to live, the measures of Haidilao are really useful for other companies to learn. The growth of the employees can not only satisfies the need of self-fulfillment, but also helps the development of the company.

Haidilao has its own definite principle and the persistence of high quality service, encouraging staff to be positive and aggressive, which influences employee job involvement. During the process of Haidilao's development, it has clear position and carries out the principle of „simple things, repeat‘, paying much attention on the effect of word of mouth. At the same time, the corporate concerns staff’s needs and lays emphasis on team spirit, cultivating positive spirit for staff.

F: ‘It is a corporate which has its own persistence. It's not like some enterprises that have operated for several or ten more years. 20th March of this year celebrated the 20th birthday for Haidilao. It has maintained its own service quality and developed under its own standards. It won’t give up this kind service style for more money…..Here, old employees teach new employees and get growth together. Now, many employees in Haidilao are my prentice. This style continues for long time different from other enterprises……Actually, the corporate culture plays big impact on myself, because of a sentence in Haidilao’s song- create the future by your hands. It’s a very simple sentence which is very easy to speak out. At that time, I tried my best to work and do all things that other people don’t do or don’t want to do. I insisted on it and now reached this position. Now, I learn management knowledge with stop manager.’

Such culture background with standard rules and regulations is beneficial for employee understanding corporate's value and expectations, which could increase employee’s identity to work and organization and improve their positivity and job involvement. Powerful enterprise culture can give all employees the same but important information, its values are widely recognized and shared, and the values are closely linked to behavior. The culture of Haidilao affects its staff, cultivates team spirit, and motivates staff to be positive. All of these make employees to keep more passions and higher job involvement. According to Maslow’s need theory, to a large extent Haidilao did respect to its employees, satisfy individual higher-level needs of „esteem needs‘, and encourage employees to achieve the highest level needs of „self-actualization needs‘. Company can pay such attention on staff’s growth, it must greatly enhance the staff’s sense of identity and belonging to organization. In that case, employee job involvement will not be low. This provides a good model for other service companies.

- The leadership style of respect subordinate

Overall, employees in Haidilao have no complaint about their managers. Some of them think their superiors help them to grow like brothers and sisters. The leaders of Haidilao all are from basic level. They understand the psychological state of grass-roots staff and can manage them in a proper way. And this kind of managers can manage staff easier and is contribute for the whole team cooperation. The thought that is delivered to employees is: „As long as you pay, there will be return. Working hard from basic level, you will be able to promotion.‘ Besides, most of managers respect every employee’s opinion which has effect on job involvement. Although superiors can give reference to their staff, how to do depends on every employee. In conclusion, in the side of Haidilao, the relationship of superior and subordinate is harmonious. Respect and recognition for employees can inspire employee to involve more with job. It should appeal more attention of managers when they manage their staff.

F: „I don’t think there is any model role in my work. But one thing, what you learn is influenced by your superior. The influence is osmosis and which is inevitable. And also it depends on yourself. Look at me, I contacted with two shop managers whose work styles
were totally different when I did two previous jobs. What to learn and how to learn depend on our own. I think my superior give me study reference.

5. Discussion and conclusion

Discussion

Employee job involvement is important for restaurant’s service quality which directly influences the service quality and company image that customers perceived. Therefore, exploring the potential antecedents of job involvement for restaurant employees is important while current researches on this area are very limited. In the process of service, job involvement of the employees from Haidilao is most outstanding among restaurant industry in China. Its great management for employee makes it as a successful example for other catering corporates. So, what are the potential antecedents that affect employee job involvement and how do these factors drive so high level job involvement in Haidilao? The study used qualitative method to research this question and adopted semi-structural interview and participatory observation to collect data. After data collection, we analyzed data using content analysis and put forward a modified comprehensive model. Lastly, the findings of the study were showed based on the modified comprehensive model.

According to the research, this paper found that the factors affecting employee job involvement of Haidilao were personal characteristics and work situation. What’s more, work situation was divided into job characteristics and organization environment these two sub-dimensions. Previous research also showed that individual, organizational, and environmental factors influence the employee job involvement (Cooper et al., 2014). As for the aspect of personal characteristics, Haidilao paid much attention to staff’s own characteristics and thought it is the foundation of the high job involvement. In the recruitment and training policy, Haidilao adopts recommendation system to select ordinary employees and selection & promotion system to select the higher level employees. The company sets up training center and carries out training certificate examination, whose result is used as reference to decide employee’s next training. It implements the tutorial system for new staff in their trial practice, in which master will teach new staff the specific method and operation process of the business. Except technical director and finance director selecting from external recruitment, all other personnel are developed from basic waiter and waitress. All these show the importance of staff’s own characteristics and training in Haidilao. The research showed that correctness of work attitude, maturity of motivation, higher responsibility, and positive cognition of enterprise or work, all of them had positive impact on job involvement for service industry staff. Good training could be benefit for these. The research of Wang et al. (2011) pointed out that personal characteristics had significant impact on employee job involvement, but they didn’t explain the impact whether positive or negative. In addition, Lambert (2008) reported job involvement had significant positive relationships with work–family conflict. It means that family and marriage influence employee job involvement. Although this research didn’t show the specific effect of family and marriage on job involvement, it still verified relationship among them.

In term of job characteristics, high work autonomy, clear work evaluation and feedback, and positive work significance could help to improve job involvement, promote staff’s growth, and create better performance for enterprise. Many scholars also thought job characteristics (including richness of work content, integrity of task, and autonomy and feedback of job) had important impact on employee job involvement (Brown, 1996; Allam & Habtemariam, 2009; Chung-An, 2012; Lambert & Paoline, 2012; Hassan, 2014; Pei-Chuan & Chaturvedi, 2016). Job characteristics would influence employee's mental feelings by impacting their perception and cognition of job and work environment. When employees believe their work is both important and challenging, they would get identification of job.
and then to work with more emotion and energy. In Haidilao, every employee has his/her own skills and they will make customers happy by talent show. It is a very special policy to server customers which is rarely seen in other restaurants. And it really gives customers surprises when they see it for first time. Then the staffs of Haidilao would feel the sense of happiness and experience the sense of achievement after complete the task (Wang et al., 2011).

Lastly, for organization environment, the research found that harmonious working environment, clear and definite management system (comprehensive training, superior benefits, fair promotion mechanism, and real-time system of rewards and punishments), good corporate culture, and respect leadership style, all were very important factors influencing job involvement. Haidilao puts the philosophy of "create fair working environmentl and —change destiny by our own hands” as in the front of business goal, which is based on the responsibility for employees and put employees benefit in the first place. In the company, from the chairman to new staffs, everyone treats others with all sincerity. When they are at the meeting, everyone has the right to speak out his/her ideas and suggestions. Haidilao respects for each employee and gives them full trust. The employees in different level have different signing authority, even the frontline staffs have right to give customer discount and free in some degree. In addition, the company pays great attention to employees' amateur life, such as all kinds of comparison activities, friendship contests, and so on. Meanwhile, Haidilao also sets up a special fund with one million every year to treat employees and their immediate family members if they get serious diseases, to establish schools so that employees’ children can easy to go to school. Besides, the creation of Haidilao Newspaper enriches employee’s knowledge of management, food culture, health, etc. In terms of performance appraisal, Haidilao considers employee orientation and customer orientation simultaneously. The idea of assessment is focusing on positive incentive with the complement of negative incentive and giving priority to reward while regarding punishment as complementary action. Every month, the company will appraise and elect advanced employees, setting up the innovation award at the same time. Besides, it also carries out —employee incentive plan to distribute proper stock to excellent staff. If employees work in mistakes, they will be circularized a criticism. But if offenders refuse to correct their wrong behavior, then they will be fined. In contrary, if offenders improve after warning, the company will return the original amount with interest to them. As for compensation management, staff income of Haidilao takes the leading position in similar enterprises, whose overall average is higher than others by 10%-20%. Haidilao has generous benefits, completed accommodation and other supporting. All these human resource policies in Haidilao help their employees gain higher job involvement and better work performance. It reflects that work environment factors affected employee job involvement, and that factors include management mechanism (Pei-Chuan & Chaturvedi, 2016; Chung-An, 2012; Hassan, 2014), corporate culture (Hsing—ER, 2011; Gang et al., 2012), work atmosphere (Chen & Chiu, 2009; Yu & Li-Li, 2014), the support for staff from organization and superior (Lambert & Paoline, 2012; Ding-Guo & Ya-Fang, 2013), and so on. Based on social exchange theory, some needs of employees could be met only through organization. So when organization meets staff’s specific needs and promotes their growth, staff will be with higher job involvement in return for organization (Ping-Huan et al., 2011).

Conclusion

The article analyzed the factors influencing job involvement. In conclusion, when employees have high sense of responsibility, mature work motivation, and positive work attitude, at the same time, if the job is complete with rich content and challenging and organization can give enough support to employees, encourage employees to innovation, and give feedback to employees in time, then it is
easier to cultivate the employees with high job involvement. So, when enterprises select talents, they need to design a good recruitment process to find those employees who have the potential to create high job involvement. And then enterprises need to match employees to position in which employees can take their advantages of the largest. After recruitment, training is also crucial. Next, when enterprises design the specific work, they should highlight the work is important, challenging, and innovative. They could give employees feedback in time by real-time reward and punishment. Finally, in terms of management system, it need reflect more fair and humanistic care, and let every employee understand the rules and regulations in a clear way. Meanwhile, the good culture and work atmosphere are also need enterprises think seriously.

In this paper, the case study provides theoretical reference and practical guidance to service management of catering enterprises. It is contribute to enterprises to improve service quality by managing staff, then to improve employee's work performance and create more benefits for enterprises. In respect of theory, the research enriches the theoretical knowledge of job involvement. Almost all existing studies of job involvement use questionnaire survey as research method to research the relationship of limited variables, the basic descriptive case study is extremely rare. It lacks the full picture of potential antecedents of job involvement. This article made up the lack of this problem. Besides, this paper adjusted the existing comprehensive model, distinguishing the dimensions of job characteristics and work environment. It stressed the importance of these two on job involvement and made factors much clearer.

Of course, there are still some shortcomings. Because of the qualitative research method, we could just extract the potential antecedents of job involvement from interview and observation but could not to determine importance and relationship of these factors. For example, employee’s marriage was showed that it had impact on job involvement but we didn’t know whether unmarried or married people would have higher job involvement. In the future, research can use the factor extracted from qualitative research to design measure scale and do quantitative research to determine the importance and specific relationship of these factors, which could make research more comprehensive. In addition, this study uses single case, so the universality of the results needs further investigation. The sample of interview is also not enough which limit the depth of the study. The future research can select more service enterprises as cases to do comprehensive research and get more general conclusion.

References


An investigation into the way in which the travel agencies make use of social media in promoting their business in Thailand

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Abstract

Social media are rapidly growing and becoming part of customers’ lives. Over the years, several studies have been conducted on the use of social media in the tourism and hospitality industry. However, no significant academic research has been conducted on the use of social media by travel agencies. Nadzeya explained that online travel agents and Internet technology are rapidly increasing and advancing, respectively. Therefore, they result in a significant decrease in traditional travel agents in spite of their expertise in tourism information and their ability to assist tourists travel smoothly. With a high level of competition in the travel agency industry and the popularity of the Internet and social media among people, companies should consider using this type of media as a marketing tool and should adapt to social media. This study investigates the manner in which travel agencies in Thailand select the types of social media and use them to promote their businesses. This study adopts the qualitative methodology with travel agencies in Bangkok, Thailand. Results reveal that social networks are popular among the participants because they can gather people from around the world, and they are ranked number one among users. Travel agencies in Thailand use social media to promote their businesses by providing information, using social media as a tool to communicate with customers, gain attention from customers, and encourage them to purchase products.

Keywords: social media, travel agency, marketing, tourism, social media marketing

1. Introduction

According to Hopkins (2012), social Media are regarded as website that hosts and helps people to create a network, where messages can be discussed and shared. Social Media has become so trendy and so powerful that many of the famous brands have realized its efficiency and began to use it as a means to communicate their messages to their customers. Recently we have come to know of how fast people could connect, communicate and interact with each other via the use of Social Media (Carter, 2012).

Over the years, numerous studies relating to the Social Media used in tourism and hospitality industry have been found. Interestingly however there have not been yet so many academic researches on the use of Social Media among travel agencies. Referring to Nadzeya (2013) the Online Travel Agents (OTAs) and the Internet technology are rapidly growing. This has therefore resulted in a significant decreasing rate in the traditional travel agencies despite of their professionalism with regards to tourism information and to helping tourists travel smoothly.

With a high level of competition in travel agency business and the popularity of people using the Internet and Social Media, it is believed that, any company in this field should consider using this kind of media as one of marketing’s tool and as well as adapting itself in the Social Media world.
For future research, this study will help to provide information from companies’ perspective. There are not many researches about Social Media in the Travel Agency field and future research can use this work to further contribute to travel agencies and Social Media investigations. Not only from its academic contribution, this research will also help Tourism Authority of Thailand (TAT) and the association of Thai Travel Agents (ATTA) to gather information and develop a guidebook on how to generate benefit from Social Media for the travel agencies all over Thailand.

**Research question**

Based on the purpose of this study, the following research question was addressed:

1) How do travel agencies in Thailand select the type of Social Media and make use of them to promote their business?

**Research objective**

This study tends to understand and explore the role of Social Media in Travel Agencies in Bangkok Thailand.

- To Study what types of Social Media Travel Agencies in Bangkok Thailand are likely to use.
- To examine reasons Travel Agencies select types of Social Media
- To investigate how Travel Agencies in Bangkok, Thailand use Social Media

**Rationale of research**

Nowadays, online travel agents (OTAs) are very convenience ways for customers to purchase travel product. The existence of several OTAs that poses threats to travel agencies in order to look into how these travel agencies select and make use of Social Media to promote their business. There are not many academic studies on the subject topic in travel agencies most of research or study focuses in big picture as tourism and hospitality industry. Many researches about travel agent is fall behind at the moment, therefore the researcher aims to update this information the current situation. The researcher want to know that Social Media is great tool for gain benefit however how travel agencies use it with business is it work or not and how does it work with their business.

**Significant of research**

Therefore, the author would like to carry out the research to find out the way each companies use Social Media to promote their business by interviewing the owner or marketing staff those at managerial level to find out reasons they choose specific types of Social Media and the way they make use of the media. Through comparing the findings with information and examples from literature review, the author hopes the research can give guidelines to travel agencies in Thailand the way of making use of Social Media to promote their business.

In term of travel agencies business, this study can be a guild line to use Social Media in business strategies. Companies will know that Social Media is an essential and potential tool if companies utilize it in the right way. The research will be a way to develop Social Media strategies in company in order to please their customers the most and let them share company tourism products in positive way.

For Thailand tourism and hospitality industry, this research also can be used as a guideline for any tourism Social Media site such as hotel, hostel, car rental services, wellness business, and food and
beverage business since the nature of business contain similar information serving for consumers and users.

For Tourism Authority of Thailand (TAT) and the association of Thai Travel Agents (ATTA) which directly related with organization can gather information of the study area and of the guidebook how to generate benefit from Social Media for travel agencies all over Thailand.

For researcher, this study will help to provide information from companies‘ perspective. There are not many researches about Social Media in Travel Agencies and future research can use this research to contribute the future research about travel agencies and Social Media in other aspect.

1.1 Scope and limitation of the study

This study focuses on Social Media marketing and travel agencies in Bangkok. The limitation and also the weakness of this study is the interview process which conduct in Bangkok, Thailand not cover the other part such as Chiangmai, Phuket, and other area in Thailand where can help the study to be much more benefit to the industry. The other limitation is this study focusing on Social Media thing which rapidly growing expeditionary and can be change the concept or the way it use all the time, therefore after the study finish there will be some new issues comes up. Lastly, there are rarely of academic journals and books that mention Social Media with travel agencies or in specific ways, mostly the information gather from websites or online travel communities (Benziang Zeng, 2014).

1.2. Definition of terms

1.2.1 Social media

Social Media can be defined as the powerful tool for connect with others people by using online website as a center for each other. The content can generate by users or customers or brand or from business. Use for engage people in exchange information and opinion (Cross, 2013).

1.2.2 Travel agencies

An individual or firm authorized to sell travel services to the general public Kathleen Lingle Pond. The professional Guide: Dynamic s of Tour Guide: 260 defined travel agent as —A retail business authorized to sell travel products on behalf of vendors such as airlines, rail companies and lodging establishments.

There are many responsibilities in this business for instance seek for travel products; ticket, vehicles, booking ticket, plan for customers‘ itinerary. Customers can gain benefit from travel agent service for example save time for planning, gain best deal, get more in depth information from them (Kaorn, 2010).

1.2.3 Web 1.0 and 2.0

1.2.3.1 Web 1.0

Web 1.0, it is referring to the stage of World Wide Web‘s. User cannot generate content, it was called the —read-only webl. Consumer can only access to read information and read it (Getting, 2007). Getting also called Web 1.0 as —brick – and – mortar thinking applied to the webl. Companies use Web 1.0 for make an online presence and make consumers read information from anytime.

1.2.3.2 Web 2.0

Musser j., (2007) said that—Web 2.0 is where users are both readers and writers and the Web 2.0, more than the Web 1.0 and allows communication and collaborationl. Mar Buigues-Garcia,
(2012) claim that —Web 2.0, in contrast to the earlier Web, also called Web 1.0, is more participative, interactive and emphasises on-line collaboration and communication with users by talking 4. Online license transfer

2. Literature reviews

Social Media: definition and significance

The term —Social Medial has been studied in various ways and this term was finally given in 1990’s as it came from the development of the Internet technology. Mangold and Faulds (2009) defined Social Media as a new channel of online database or information made by consumers to tell stories about products, business, brands, services and personal lifestyle. Ryan and Jones (2000) stated that companies could use Social Media as a tool for marketing, Evidently, Social Media used in marketing can provide a timely dissemination of information in a simple and ordinary manner as well as empower consumers to take part in spreading the information.

According to the Thailand Internet user profile in 2013, the online social networking is regarded as one of the most preferred-types as compared to the other types of Social Media. Common Social network frequency used by Thai people are: Facebook, Youtube, Google+, Instagram and Twitter (—Thailand Internet User Profile,l 2013). In May 2014, Thailand was ranked at 9th worldwide in Facebook population with 28 million people that share 42% of the total population of Thailand (ZocialRank.Inc, 2014).

Type of Social Media

Chainiran, (2011) and Grahl, (2014) divided Social Media into six categories. Firstly, a blog, which is the short term for Weblog, is referred to one of the content management systems. The second type is Twitter and microbloging. This category is regarded as one of blog types but there is a limitation for each post at 140 words only. This type of Social Media is used as a marketing tool in term of brand awareness and electronic word of mouth. Next, is Social network or Online Social Networks (OSNs). Boyd and Ellison (2007, p.221) stated that the social networks sites are where people communicate with whom they share a connection together. They are able to go through their connections lists as well as others lists to which they are connected with (such as —friends listl). The Fourth category is the Media sharing. Media sharing is a website that open channel for users to upload images, videos, slides and other media. The purpose of this Media Sharing is to share them with the other users. The Fifth category of Social Media is Social news and Bookmarking. This category is a website that links contents on the Internet. User can send and have opportunities to vote. Last but not least, there is an Online Forum. This kind of Social Media is regarded as the oldest style where it offers a place online to the consumers to discuss their common interest such as music, movie, politic, sport, healthcare and so on.

Social Media Marketing

Social Media marketing (SMM) is the way to use Social Media as a marketing tool between companies and customers. Marketer uses Social Media as center platform to create content, gain attention, and encourage consumers to share content’s information through Social network services sites such as Facebook, Twitter and others. Once the marketing messages reach their targets, the information is spread to potentially other target customers to raise brand awareness and other product/service advantages via the Social Media world as main channel of communication.
The use of Social Media in tourism business and travel agencies

Benziang Zeng (2014) explained that Social Media allows travel agency companies to enhance their potential in travel information expertise to their customers and create relationship with past and new customers. In addition to creating relationship with customer, travel companies using Social Media also have opportunities to generate sales income and enhance customers' loyalty. The Australia Social Media Website, (n.d.) claimed that travel companies are trying to find their place and follow the trends by using Social Media. Jack Ferguson who is president and CEO of Philadelphia Convention & Visitors Bureau states that —In recent years, there has been a shift to more visual platforms, which is great for the travel industry, as compelling images are proven to increase engagement and generate interest. By sharing attractive photography in creative way for example, running contests for users to guess the location in which a photo was taken, travel planners can target an audience that might be otherwise unreachable via traditional marketing channels.1 (Finley-Bajak, 2014). Most of travel companies utilize Social Media to share each trip experiences and travel information from customers as well as promote special deals. (WidereachsocialMedia, 2014).

AIDA Model and Social Media

Marketer also knows and uses AIDA for a long time even the way to promote business is changed to new technology. Muengsri (2012) stated that companies could use AIDA model in their Social Media and Online technology strategies by encouraging people to know about the brand in following the step of the model. AIDA model is the model for marketer to adapt their marketing strategy. The model consists in four levels each one representing the different stages the customers going through during the process of purchasing a product or service (Hanlon, 2013). AIDA stands for Awareness (Attention), Interest, Desire, and Action. E.St. Elmo Lewis (1872 – 1948) who was an American advertising advocate invented the AIDA model (Muengsri, 2012).

Awareness (Attention) is the way to create attention or awareness of a brand or website (Elliott, 2014). Interest is the level to make customers start to know more about the brand and the steps to further encourage customers to begin researching on the brands, products, and services (Elliott, 2014). Desire is the step when the customers desire to purchase a product. (Elliott, 2014). Action is the level to make customers decide to purchase the product or have an interaction with brands or firm (Muengsri, 2012).

Conceptual Framework

Fig.2.7. Conceptual Framework for The role of Social Media and travel agencies in Thailand.

This paper is to look into the extent travel agencies in Thailand make use of different types of Social Media to promote their business. Through the findings, the author can have a better understanding of
how they select and make use of different Social Media. By comparing the information from the literature review of the roles of SMM and that how other travel agencies make use of Social Media Marketing (SMM), the author can suggest the way these agencies to make use of Social Media to promote their business.

3. Methodology

3.1. Research design

This research study aims to explore the ways Travel Agencies in Bangkok use Social Media in their business. And explore the way Travel Agencies choose or select each type of media, Social Media planning to promote business. Therefore, the research study is designed to retrieve information from the owner of Travel Agencies or representative, who responsible for Social Media Marketing.

Qualitative methodology is chosen for this research. —Qualitative research is defined as research that is undertaken using an unstructured research approach with a small number of carefully selected individuals to produce non-quantifiable insights into behavior, motivations and attitudes(Wilson, 2006). Creswell, (2009) stated that —Qualitative methodology is applied as a means for exploring and comprehending information from a concerns related to social or humanl. Creswell, (2007) also said — Qualitative is a process which was defined as a process of emerging questions and data, collected from respondents’ setting, for interpreting the meaning of the datal.

The qualitative research interview seeks to describe and the meanings of central themes in the life world of the subjects. The main task in interviewing is to understand the meaning of what the interviewees say (Kvale,1996).

By using qualitative method, it helps to explores new items or identify the characteristics for the particular segment (Moliner, Sanchez, Rodriguez, & Callarisa, 2006). And qualitative methodology approach is being used with this project study with main purpose for focusing on —interative processes with few numbers of selective participants along with the purpose of thematic analysis and particular invlovement of researchersl (Neuman, 2006).

3.2. Study Area and qualification

This research aims to explore Travel Agencies behavior of the way they utilizes Social Media. Also, as this directly focuses with Social Media marketing, planning, and strategies, the selection of Tour Company representatives would have to be carefully selected for conducting interview. The selection of representative shall be according to following qualifications;

1) The representative from Travel Agencies office located in Bangkok, Thailand
2) The representatives are member of Association of Thai Travel Agent
3) Tour Company where registered with Tourism Authority of Thailand
4) Tour Company where use Social Media as a tool to promote their business

The above are basic qualifications for the interviewers however the researcher start from the connections in researcher’s list. Most of researcher’s connection and network are Travel Agencies companies. Because researcher is working as Web and Graphic Designer and most of customers are Travel Agencies. To approach these companies, researcher sent email for interview after pass the committee of Institutional Review Board (IRB) of Mahidol University process, to ask for permission to arrange the interview process and ask them do they use Social Media to promote their business, because there is no number accurately for companies which use Social Media in their businesses.
3.2.1 Sampling approach

This research aimed to interview with the selected participants to whom they have been chosen based on the specific position and qualifications. And the participants are staffs or the owner of the company who can respond in English. Purposive sampling method was utilized because — it is a valuable kind of sampling methodology which could properly applied with the special occasion or research situation, especially in exploratory research. Also, in order to explore for the best finding, by using the judgment of experts in selected cases with specific purposes (Neuman, 2006) with the question of this research, purposive sampling method is the most appropriate to use with the target or respondent as an informative data.

Purposive sampling method can be defined as — a non-probability sample that conforms to certain criterial (Cooper & Schindler, 2011, p. 385). This type of sampling design was utilized when a member of respondents are limited (Sekaran, 2013). This research use Purposie sampling and use Snowball sampling. Snowball sampling is utilized to find the interviewee and companies by ask the owner of each company to tell researcher which companies do he/she refer to ask next however those companies have to be in qualification above.

—Snowball or chain referral sampling is a method that has been widely used in qualitative sociological research. The method yields a study sample through referrals made among people who share or know of others who possess some characteristics that are of research interest. (Patrick Biernacki, 1981)

In order to meet research objectives of this project, the interviews conducted until the point of ‘saturation’ has been obtained from Travel Agencies from the lists. Glaser and Strauss, (1967) said that Saturation means researcher cannot obtain new data or information by conducting further interviews. Researcher aims in-depth interview sample size of a maximum of 30 companies, which is a reasonable size to conduct qualitative data (Griffin & Hauser, 1993; DePaulo, 2000). Therefore, researcher interview at interval of 10-15 interviews until the saturation point to get the information. Finally, there were 20 participants who participated in this research.

At the beginning of the interview process, the participants were if the researcher could use tape recorder to make sure the information in the research were clearly defined as the time conduct the interview. All of them also informed the interviewer to reassure that all the obtained information from the interviewer must not be exposed to public or even to other Travel Agencies. The average length of the interview was about 60 minutes.

3.3 Data collection process

After the approval by the committee of Institutional Review Board (IRB) of Mahidol University, the data collection process was gathered immediately. By the way of the topic and target population for this research in-depth interview was chosen. The process of data collection will be as per followings;

1) Conduct the listing names and contacts details of discerning Tour Company. The contact lists conduct from Researcher’s networking.

2) Delivering invitation letter with overall intention of the topic and brief explanation together with interview questions. The invitation letter will be send after the approval by committee of Institutional Review Board (IRB) of Mahidol University. The letter will be send by emails and/or letter along with details to selective participants or to the connected people if needed.

3) In the letter will ask the interviewee about Social Media usage, Do your company use Social Media to promote your business?
4) After send letter of invitation researcher will arrange the appointment for the date of interview with company.

5) Managing personal or individual in-depth interviews in front by following interview guild lines and questions. The time period for the interview process will be approximate one hour, all interviews would be tape recording or any digital devices, and the place will be in the convenient location as preferred by Tour Company.

6) After finish the interview, Tour Company will be receiving the transcribed interview as for verifying the precision of all information related to interviewees and data will be kept confidentially including the result of this project will be only used for educational purpose.

7) According to confidentiality and privacy, after the study is finished, all material including sound clips or any data which might reach to Tour Company, will be destroyed within 30 days after all the processes of this project study is completely conducted.

3.4. Data analysis

During face-to-face interview, the content was taken note as the permission of the owners and marketing staff of Travel Agencies. And researcher also uses the tape recorder to record the information by asking the permission as well. After all permissions and interviews process, the researcher checked all collected information to find out any ambiguity information. Finally, the content analysis was used in this method. Brotherton (2011) stated that content analysis is the commonly applied to qualitative data obtained both inductively and deductively.

Thematic analysis technique was utilized to analyze the data. It is the technique used to identify the similar phrases or pattern of answer for interviewees. And also qualitative method research used this technique to show relationship among the theme and pattern to supports the relationship among the answer from the interviewees. Thematic analysis can be defined as —a process to be used with qualitative information: or is defined as —a process that can be used with most, if not all, qualitative methods, and that allows for the translation of qualitative information into qualitative data, if this is desired by the researcherl (Boyatzis, 1998, p.4).

In addition, Guest, MacQueen, & Namey, (2012) stated that —thematic analysis is a process which requires involvement from a researcher and also analyze similar and different words for a purpose of combing, creating theme of the data into groups or codes which specifically developed to represent the data for later analysis. It is also known as a process for developing relationship between codes and the data set.

4. Findings

This chapter presents the finding of the collected data which are from in-depth interview on 20 participants. Researcher conducted this interview with owners and marketing staffs of Travel Agencies in Bangkok Thailand. In initial step, researcher contacted and asked participants to participate by phone, e-mail or contacted directly in their offices.

The in-depth interviews normally followed a semi-structured interview because it aimed to explore unknown phenomena. Typically these face-to-face in-depth interviews took place at the travel agent’s office and lasted between 45 and 60 minutes. After conducting 20 interviews a certain point of saturation had been reached and it became apparent that no further interviews would add additional and useful information relevant to the research question. Therefore, after 20 interviews the process of collecting data was completed.
Social Media

This finding shows perception of Travel Agencies in Bangkok, Thailand for Social Media. Majority of participants suggested that Social Media is the tool to create brand awareness and it is the easy way to connect with customers. Social Media is a must channel, which companies use to communicate with customers. Most of target customers are from Social Media and the identity of each company originates from the Social Media use. (Participant 2) A minority of participants suggest that Social media is a tool to promote their business with low budget. —Social Media is our way to promote our business such as product/service and make profit at a very low cost.l (Participant 10)

Type of Social Media

According to the findings, Facebook is the main Social Media, which participants have selected. However, Facebook is not the only one used. Some respondents said they use other types of Social Media as well. For example Blog, Media Sharing and Microblog, —Most of consumers use Facebook and it is very effective in promoting our business and in directly communicating with our customers.l (Participant 4) —Our company use Twitter and Instagram to promote business but Facebook remains the main channel.l (Participant 2) —We use Youtube for our media channel online as well.l (Participant 12)

Social Media marketing

Difference between old media and Social Media

All companies agree that Social Media has more impact than Old or Traditional Media in term of company’s promotion. —For old media, we selected the brochure and promote it in our place for walk-in customers. Social Media is more effective even at a low cost, because it can promote by itself via customers sharing contrary to old media. —So if we can create a good content together with attractive photos adapted to the target group, it can help to promote our business effectively.l (Participant 1)

The use of Social Media in tourism business and travel agencies

From the findings, the majority of participants said that they use Social Media to provide information to customers as well as to promote their products. —To promote and make customers know about our product we use Facebook. We promote game to attract and encourage our people to join our activity. For example, our company’s promotion encourages customers and interested people to join our activity with the chance to win a free trip with our company. We provide information about how to travel to that destination and this approach makes our customers feel that we are indeed professionals and experts in our field. For Blog we share travel experience to our customers by providing beautiful pictures similar to Instagram, which we use to acknowledge people about the destination we offer.l (Participant 2)

Social Media and AIDA model

There are many opinions about AIDA model and Social Media within the Travel Agency business in Bangkok. —For attention, we can attract with photos of beautiful places; promotion that can stop people from overwhelming other photos and messages; for interest, after the promotion, we let our customers to start reading and getting our key messages; for Desire, they feel and wish to know more about our offer. For Action, the end customer will contact our company and become our customers in the final stage.l

5. Discussions and conclusions

The purposed of this research is to investigate Travel Agencies in Bangkok Thailand of how they select the types of Social Media they likely to use, examine reason participants select the types of Social Media, and to invests how Travel Agencies use Social Media.
In the attempt to answer the research question, this conclusion represents the data obtained according to the three objectives. This chapter begins with first objective—To study what types of Social Media Travel Agencies are likely to use. Next, is the second objective To examine the reasons participants select the types of Social Media. Last objective is to investigate how Travel agencies use Social Media.

5.1 First research objective

- To Study what types of Social Media Travel Agencies in Bangkok Thailand are likely to use.

The growth of the Internet has changed the way customers or people use to choose the projects and search for information regarding Travel’s products. Trusov et al. (2009) claimed that Social Media is web-based marketing that gives companies the opportunities to communicate with customers. There is contradiction between previous studied and findings which pointed out that Travel Agencies know that Social Media is good for business however; the companies did not utilize it.

The findings found that most of Travel agencies in Bangkok Thailand thought that Social Media is a channel to communicate with customers. It is researched as one of the most powerful tools to create community online, and also very useful for promote their business because most of people surf on internet and use Social Media on their smart phone, pc computer, and during office hour.

As Participants No.7 claimed that company used Social Media because it is very useful to promote and tell customers about company’s product. Participant No.2 also agreed that Social Media is great tool for their business and also can make brand awareness online. Nevertheless, from the contradiction researcher found that the previous study done 2 years ago, and the sentiment about Social Media within Travel Agencies change rapidly.

From previous studied found that there is six types of Social Media act as a medium for people to communicate. Chainiran, (2011) and Grahl, (2014) purposed that there are six types of Social Media. The First is blog which user can post and write in their free will. The second is microblog and Twitter, this type has a limitation of word, users or companies can post 140 words per post. The Third is Social Network or Online Social Network (OSNs). It is the site which users can generate post and communicate with the other via their connection (Boyd and Ellison, 2007, p.221). The forth is Media Sharing, it is act as medium for user sharing media files such as pictures, videos, songs, slides, and other media. The fifth is Social News and Bookmarking and the last one is Online Forum.

However, from the findings found that Travel Agents do not use all of six types of Social Media. The findings found that the participants use 3 types of Social Media; Social Network such as Facebook, Media Sharing such as Youtube and Instagram, and Microblog such as Twitter. There is similarity between previous studied and findings found that the most popular types companies adored to utilized is Social Network as Facebook, but from previous studied shown that Micro Blog is the second type followed by Media Sharing. The Findings found that the second which Travel agencies choose in the business is Media Sharing such as Youtube and Instagram, and follow by Twitter from Microblog.

5.2 Second research objective

- To examine reasons Travel Agencies select types of Social Media

From the findings, found that travel agent in Bangkok Thailand select the type of Social Media from the number of people. Facebook is one of Social types and being ranked number 1 from among other Social Media site. Being popular and can gather people from around the world, which made it, become one of the first choices for travel agencies. In 2015, Thailand ranked number 9 in ranking around the world that used Facebook and being used by 35 million people (Zocial Rank.com, 2015).
The number of users who use Facebook is far more than 1,280 billion users around the world (―Facebook Reports First Quarter 2014 Results‖). Hsu, (2012) claim that Facebook is the channel that gather people together in big number all around the world. And it is Facebook is the most powerful and the most place people love to connect with. Most common thing that researcher found is, it is the most used and Travel Agencies use it by Facebook Fanpage. Participant No.4 agreed with the previous that most of customers use Facebook and it is very effective good for business. Participant No. 7 claimed that Facebook is very useful to promote and make brand awareness.

Companies use Facebook Fanpage as a tool or a platform and utilize it to promote their business (McKenzie-Mohr, 2011). Companies can use Facebook Fanpage feature to help them how to plan marketing plan. Facebook Fanpage is the channel where business or companies can share their products and campaign to attract the customers. And it is the place companies’ use as a channel to provide information to customer as well.

While, Youtube and Instagram are the follow Social Media that being used by Travel agent. According to the type of Social Media in chapter 2 in section 2.1.3 Youtube and Instagram are in Media Sharing or Social Sharing categories. They are websites that allow people to create and share their media things for example image, video or sounds (Chainiran, 2011). Participant No.3 said that they use Youtube and Instagram sometimes to post pictures and video and make them know about their products. Same as Participant No.5 they said that they use Youtube as well because Travel Product is intangible product video can make customers decide to buy product easily by use visualization.

In conclusion, the way travel agent select the type of Social Media is from the type that gather people together and most used by customers. The other reason is the option in the Social Media site. Travel agencies prefer the site which companies can freely post or insert their information as much as they can include text, pictures, and video to attract customers and describe their company.

5.3 Third research objective

- To investigate how Travel Agencies in Bangkok, Thailand use Social Media.

In conclusion and from the finding found that Travel agencies in Bangkok Thailand generated Social Media in many ways as follow;

There are many similarities in this part. According to the previous research found that Social Media can generate many useful options to companies to promote their business. Tuban et al, (2012) noted that Social Media is channel to share experiences. Trusov et al. (2009) stated that it can use to interact with customers and announce product to customers. The previous study also highlighted that can reach out maximum number of people online, make brand awareness, be the tool for listening customer feedback. For discussion researcher summarize Third research objective by following table;
Table 5.1 Discussion between previous research and findings.

<table>
<thead>
<tr>
<th>Previous Research</th>
<th>Findings</th>
<th>Discussion and conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finley (2014) pointed out that Travel Designed company use Social Media to give travel information. Topsy participants said that they provide useful information which customers can learn about the place where they will travel.</td>
<td>Participant No.3 said that company's policy / use Social Media to post pictures and video to attract people and let people know about their product.</td>
<td>There are common things about previous study and finding. Researcher found that they provide travel tricks and tips to customer. Additionally, from the finding found that Travel agent though that this way will make their customer feel like the company is professional enough for customer.</td>
</tr>
<tr>
<td>2. Jongpil Park (2012) said that KAL Tour (Korean Travel Company) used Social Media to make relationship with previous customer and new customer. KAL also gain customers' opinion to develop company's product without going out to do research.</td>
<td>Participant No.4 said that company's can study customers' need and adapt in the future marketing plan. Participant No. 3 supported that their company can make use of Social Media by gain customers behavior, and forecast the new trends of customer to predict what customer's need. Participant No. 8 pointed out that they utilize Social Media to keep relation with our previous customers.</td>
<td>Both previous study and finding claimed that they use Social Media to keep relationship with customer. Not only relation pointed from research and finding found that Social Media can utilize for develop and research people behavior without utilize much money.</td>
</tr>
<tr>
<td>3. Finley (2014) said that by use photo or image, it will increase engagement and generate people's interest. Tourism Australia utilizes visual Marketing by post beautiful pictures around Australia to engage with user. Cruise Planners-American Express Travel also used travel unique and beautiful image to gain attention from customer.</td>
<td>Participant No. 3 claimed that they use Social Media to post pictures and video to attract people and let people know about their product. Participant as No.6 and No.8 referred to previous research that they use pictures of previous trip and post on Social Media. After that they told customers to collected their own pictures on that Channel to keep connect with previous customers.</td>
<td>The finding shows similarity with previous research that they use Social media to post pictures and video. The purpose is to gain customer interest and attention. And also increase relationship with customer.</td>
</tr>
</tbody>
</table>
Table 5.1. Discussion between previous research and findings. (cont.)

<table>
<thead>
<tr>
<th>Previous Research</th>
<th>Findings</th>
<th>Discussion and conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Eckerle, (2013) said that Costarican Vacation do the campaign and activity on Social Media to gain customers attention and gave them the gift card in the end of the activity.</td>
<td>Participant No. 2 also agreed about this point because their company utilized this way to attract customers and in the end customer will win the prize from company.</td>
<td>The way Travel Agency from previous research and finding had in common is they do activity online to gain people interest.</td>
</tr>
</tbody>
</table>

There are some point that previous study mentioned however, cannot found from the finding such as integrate Social Media with email survey and offer the voucher to customer to gain attention from customer. In conclusion, Travel Agency in Thailand use Social Media as a tool to communicate with customer by provide information or new product online. Apart from promote them in magazine, Travel Agency use Social Media as channel to promote as well. Travel Agency also used Social Media as a tool to gain attention from new customers and encourage them to purchase the products. The last one is use as research tool to develop their products in a free cost.

5.4 Academic contributions

For researcher, this study shows the companies' perspective of how they make use of Social Media and select the type of Social Media. Even there are many research Social Media, however, there is a lack of research look in this aspect travel agent business. Future research can use this research to contribute the future research about travel agencies and Social Media in other aspect.

5.5 Practical implication

For practical implication, this research can help travel agent how to use Social Media in travel agent way however other industry can also apply and adapt the research with their work For example transportation business, airlines business, hotel business, spa business, restaurant and café business. Travel agent business make use this research as a guideline in their marketing plan because not only the information from travel agencies in Bangkok Thailand, this research also provided information about other country make use of Social Media as well in Chapter 2. For related Government sector can also use research as a guideline for travel agent in the future. Not only for promote business this research can adapt with attraction place Social Media plan as well. Travel Agent will know the trends about other select the type of Social Media and the way they use Social Media in their business.

5.6 Recommendations for future research

The study tried to understand the way Travel Agencies in Bangkok Thailand makes use of Social Media to promote their businesses. For future research it would be formative to future explore the other side of the story. From the limitation of this research, it appears that some Travel Agencies nowadays utilized new type of Social Media because the rapidly growing of internet using and new tool in business. The future research would study new tools of Social Media such as LINE and Facebook which one is better to promote business. Furthermore, new research can also compare the influence between Travel Agent and Social Media. And it will be more benefit for Travel Agencies if the future research covers all information from the other part of Thailand or other big city.

In addition, from the finding researcher found that some companies did not make use of some type of Social Media because they are lack of person who knows how to use some of Social Media. It would be insightful to evaluate the people who working for Social Media in the office. What is the factor to make Social Media campaign success?
Furthermore, this research studied from the aspect of the owner and marketing staffs of the companies, on the other hand it will benefit the whole industry if company knows the perspective of their customer.

Appendix

Introduction of interviewee
- Introductions: Names, background, etc
- Welcome and explain nature of discussions
- Explanation of research project and objectives
- Reasons for coming to the research questions

Introduction of Social Media
- Social Media Definitions
- Type of Social Media
- Social Media in Thailand
- AIDA Model explanation

To elaborate each question depend on interviewee answers
a) What do you think of Social Media?
b) What do you think about the differentiation between old media and old media in term of promote and help your business?
c) What do you think of Tourism Industry and Social Media?
d) From the perspective of a tour agency, in what ways Social Media can help promote tourism business?
   (The Conversation talk about AIDA Model)
e) When did your company start using Social Media?
f) What type of Social Media do you use in your business?
g) In what ways do those types of Social Media help promote your business?
h) How do you use make use of that/those Social Media that you mentioned in the previous question and what are different between each of them?
i) Can you give me the example of your Social Media Marketing plan of working or your campaigns in term of promote your business?
j) Among these Social Media, which one is the best for your business and why do you think it best for your company?
k) What do you think about other Social Media that you did not use in your company?
l) What do you think about Social Media with Travel Agent business in the future?

References


Muegseri, A. (2012, December). Brand Strategy by use AIDA Model in Online world. Retrieved October 28, 2014, from Blogpanya: http://blogpanya.com/%E0%B8%81%E0%B8%B2%E0%B8%88%E0%B8%A3%E0%B8%B5%E0%B8%A5%E0%B8%B2%E0%B8%B4%E0%B8%AD%E0%B8%AD%E0%B8%99%E0%B9%84%E0%B8%8A%E0%B8%99%E0%B8%8C/online-marketing-strategy%E0%B8%81%E0%B8%A5%E0%B8%A2%E0%B8%B8%E0%B8%97%E0%B8%8E%E0%B9%8C%E0%B8%AA%E0%B8%A


Motivational and experiential factors affecting the needs of international tourists to use mobile food-information service during travel aboard

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Abstract

This study aims to investigate the factors of information needs through mobile devices among foreign tourists. The context of this study is local food information on mobile devices. Two groups of factors were investigated in this study, namely, motivational (e.g., health concern, excitement, learning desire, and sensory appeal) and experiential (e.g., technological experience and local-food experience) factors. This study employed convenience sampling and used questionnaires to collect data from 497 foreign tourists at the Suvarnabhumi Airport in Thailand. The descriptive statistics and PLS regression were used to analyze the data through a quantitative approach using SmartPLS and SPSS.

Results revealed that technological experience influences tourists' information needs, whereas the experience of local food is not a factor of tourists' information needs in the context of local food information through mobile devices. Furthermore, three motivational factors (i.e., health concern, learning desire, and sensory appeal) influence the needs of local food information on mobile devices.

Results reported that excitement is not a motivational factor of tourists' information needs. In addition, results showed the high level of foreign tourists' need for local food information, particularly ingredients and cooking methods. From the theoretical perspective, this study gains the body of knowledge by identifying the key factors affecting foreign tourists' needs of mobile local food information. This study also provides a practical understanding of foreign tourists' needs for practitioners and tourism providers to achieve mobile adoption in the context of local food information services.

Keywords: tourism, mobile device, information, tourist, food

* Corresponding author

1. Introduction

As the results of low-cost flight and convenient transportations, the growth of international tourist is very high in several countries today. Tourists' length of stay is a variable of key importance for any tourism destination due to its crucial effect on overall tourism expenditure. However, local-food consumption is the critical problem that impacts on tourist's length of stay and re-travelling. Since international tourists have the various conditions in their consumption such as food allergy, religions, beliefs, health concerns, and behavioural consumptions (Omar et al., 2015). They may need local-food information service (LFIS) based on their consumed behavior, especially the LFIS is provided for their mobile devices. For example, recommendations of organic-food restaurant, the suggestions of local dish without tourist's allergic food, and categories of local restaurants' type.

The motivational factors have been highlighted by existing studies in the other contexts of information services such as blog technology (Huang et al. (2007) and virtual technology (Verhagen et al., 2012). Likewise, Petter et al. (2013) indicated the influence of motivational factor in information system success. Moreover, the several studies indicated the association of tourist’s experiences and food consumptions (Kim et al., 2009; Lee & Scott, 2015; Mak et al., 2012; Su, 2015). Therefore, in the context of LFIS, motivational factors and experiential factors are the possible factors.
of information needs among international tourists. However, today it seems to limit the framework which consists of tourist’s motivations, tourist’s experiences, and information needs. Most of the existing studies only focused on the factors of technological acceptance among tourists such as tourist’s perceptions (Ayeh et al., 2013; Nunes & Mayer, 2014; Park et al., 2012) and innovation characteristics (Lu et al., 2015; Trakulmaykee & Benrit, 2015). Therefore, this study aims to generate the new framework which consists of motivational factors, experiential factors, and needs of LFIS. The proposed framework is investigated by Structural Equation Modeling (SEM) tools in order to confirm the study’s assumptions.

2. Conceptual background and hypotheses

Based on literature review, this study found that both sets of factors possibly influence on the needs of foreign tourists as presented in Fig 1. The first set is the motivational factors which Cetin and Bilgihan (2015) and Kim et al. (2013) indicated that it is a fundamental gaining understanding of tourist behavior and needs. And the other set is experiential factors which various studies pointed to the relationship between experiences and needs of tourists (Law et al., 2014; O’Grady et al., 2005; Sanchez-Cañizares & Castillo-Canalejo, 2015).

2.1. Motivational factors

Various studies have found that the motivational factors affect needs of information and tourists’ satisfaction (Cetin & Bilgihan, 2015; Kim & Kim, 2011). The motivation refers to a set of internal psychological needs that cause a person to act in the certain way. In the context of mobile-based LFIS, this study focuses on four aspects of motivation which will be possible to influence on needs of foreign tourists: health concern, excitement, learning desire and sensory appeal.

Health concern

In general, people avoiding certain foods tend to worry about weight, health and unnatural ingredients. Therefore, health concern is a motivational factor of tourists’ interest in local food. According to interview results of Kim et al. (2009), tourists concern about taste, local ingredients and cooking methods for their consumption during travel aboard. Gendel (2012) indicated that most allergic people have focused on providing food information in particular of food from the other countries. Likewise, several studies highlighted the relationship between personal traits and food consumption (Kim et al., 2013; Mak et al., 2012; Omar et al., 2015). Therefore, international tourists mostly need information services supporting their health concern such as food allergy, diet concern,
vegetarian, and bio-organic consumer. To examine the role of health concern on tourists’ needs LFIS via mobile device, the hypothesis was proposed as follows:

**H1:** Health concern has a positive influence on LFIS needs.

**Excitement**

Most international tourists expect the excitement of local food during travel aboard. Kim and Eves (2012) suggested that the excitement should be combined with ‘_exciting experience’ and ‘_escape from routine’ because their results indicated the both motivations in the same dimensions. Y. G. Kim et al. (2009) and Kim et al. (2013) identified that the excitement is an important dimension of motivational factor in both qualitative and quantitative approaches. Some tourists mentioned that seeing food photos and travel guide can make them excited and want to try new food. Therefore, in the context of mobile-based LFIS, international tourists possibly need LFIS supporting their exciting experience and escape from their routine. For example, searching local restaurants by GPS, gaining ingredient information of traditional dishes, and watching clips of food opinions from the other tourists. Based on the above mentions, the excitement should be a factor of international tourists’ need LFIS and assumed as the follows:

**H2:** Excitement has a positive influence on LFIS needs.

**Learning desire**

Many different countries have many different kinds of foods. Several international tourists seemed to desire to know more about the other countries and to observe the new things. The learning about history and understanding different cultures are the tourists’ motivation (Kim et al., 2013). Tourists can learn the local culture on table manners and different cooking methods during their travel (Getz, 2000). However, previous studies highlighted that people need information to increase their existing knowledge (Lioutas, 2014). Likewise, Schultz et al. (2012) stated the association of learning desire and information needs among older adult. Therefore, international tourists will need LFIS to support their learning desire. Based on the existing literature, the following hypothesis was purposed.

**H3:** Learning desire has a positive influence on LFIS needs.

**Sensory appeal**

The sensory appeal can play a crucial physiological part in appreciation of food. It refers to the sensation or feeling through specific senses such as sight, taste, touch, smell and hearing. Sight and taste tend to be the key consideration for most people consumption. International tourists want to see the nice food and restaurant photos before their decision making. Wang and Liao (2007) and Tsang et al. (2010) indicated that the good quality of presentation influenced on users’ satisfaction and intention to use information services. For the taste, international tourists also want to know the kinds of taste in particular of the spicy level. Some tourists gain the taste information by reading food experience from others or word-of-mouth. Therefore, the sensory appeal should be examined as a factor of tourists’ needs in LFIS.

**H4:** Sensory appeal has a positive influence on LFIS needs.

2.2. Experiential factors

The association between the user’s experience and need of information has been conceptually addressed from technological experiences beyond contextual experiences (Ho et al., 2012; Wong et
In the context of mobile-based LFIS, this study focused on technological experiences in mobile technologies and local-food experiences of international tourists.

**Technological experience**

Travel behavior is dynamic through mobile technologies and the needs of information services is considered by various researchers today (Lamsfus et al., 2015). As a result of personal skill, the technological and travel experiences are the factor which was investigated the association with the other constructs (Eriksson & Strandvik, 2009). O’Grady et al. (2005) found the significant impact of previous technological experience upon the perceived ease-of-use. They indicated that the need of users with limited experience of technology should be considered because it leads to a sense of comfort and greater satisfaction to use technology. Likewise, Huang et al. (2007) revealed the correlation between content gathering and information seeking motivation in the context of information technology. Therefore, this study expected the association of technological experience and information needs of international tourist as the following hypothesis.

**H5:** Technological experience has a positive influence on LFIS needs.

**Local-food experience**

The local-food experience is a travel motivation of tourists (Sanchez-Cañizares & Castillo-Canalejo, 2015). They are willing to pay and try traditional dishes which are different from their daily meals. Frisvoll et al. (2016) highlighted that the knowledge of local food products influenced on tourist’s consumption. Similarly, Sengel et al. (2015) indicated the food turned into a travel motivation of tourists to get back to the destinations to local food. According to Law et al. (2014), food is one of most shared attributes in social media. The foreign tourist who does not have any local-food experience or less knowledge about local food maybe needs more information than others. Therefore, the local-food experience is a possible factor of information needs and the following hypothesis should be examined to evidence this assumption.

**H6:** Local-food experience has a positive influence on LFIS needs.

### 3. Research methodology

#### 3.1. Questionnaire design

The questionnaire consists of five parts such as profile of respondent, motivational factors, experiential factors, needs of food-information services, and suggestion. As presented in Appendix A, the items of motivational factors were adapted from the studies of Kim and Eves (2012) and Kim et al. (2013) using 5-point Likert scales (1 = strongly disagree and 5 = strongly agree). The items for measuring technological experience adapted from Huang et al. (2007) and Eriksson and Strandvik (2009), while the items of local-food experience were adapted from Eriksson and Strandvik (2009) and Kim and Eves (2012). For LFIS needs of international tourists, the measures were adapted from Wang et al. (2012) and Wong et al. (2015). Before data collection, this study conducted pilot test using convenience sampling in order to ensure the effective questionnaires. Thirty questionnaires were distributed to international tourists at Suvarnabhumi Airport in Thailand. The feedbacks from participants were used to improve the questionnaire before process of data collection.

#### 3.2. Sample and data collection

The population of this study is international tourists who visited to Thailand. The questionnaires were distributed to international tourists using convenience sampling technique at the International
Departure Hall in Suvarnabhumi Airports of Thailand. Before filling out the questionnaires, the respondents were illustrated the Graphic User Interface (GUI) of LFIS in a few minutes. Finally, the questionnaires were collected back from respondents. The total number of completed questionnaires was 497 that is enough for hypothesis testing with population more than one million (Hair et al., 2010; Sekaran & Bougie, 2010). Therefore, the data of this study is proper for analysis and testing in terms of reliability, validity, and research model. The demographic data of respondents was presented in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Profile of respondents.</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>236</td>
<td>47.5</td>
</tr>
<tr>
<td>Female</td>
<td>261</td>
<td>52.5</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 21 years</td>
<td>79</td>
<td>15.9</td>
</tr>
<tr>
<td>21-30 years</td>
<td>254</td>
<td>51.1</td>
</tr>
<tr>
<td>31-40 years</td>
<td>78</td>
<td>15.7</td>
</tr>
<tr>
<td>41-50 years</td>
<td>42</td>
<td>8.5</td>
</tr>
<tr>
<td>51-60 years</td>
<td>31</td>
<td>6.2</td>
</tr>
<tr>
<td>Over than 60 years</td>
<td>13</td>
<td>2.6</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower than Bachelor degree</td>
<td>177</td>
<td>35.7</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>185</td>
<td>37.3</td>
</tr>
<tr>
<td>Master degree</td>
<td>109</td>
<td>22.0</td>
</tr>
<tr>
<td>Doctoral degree or higher</td>
<td>25</td>
<td>5.0</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>158</td>
<td>31.8</td>
</tr>
<tr>
<td>Christianity</td>
<td>148</td>
<td>29.8</td>
</tr>
<tr>
<td>Islam</td>
<td>109</td>
<td>21.9</td>
</tr>
<tr>
<td>Hinduism</td>
<td>27</td>
<td>5.4</td>
</tr>
<tr>
<td>Buddhism</td>
<td>16</td>
<td>3.2</td>
</tr>
<tr>
<td>Buddhism</td>
<td>16</td>
<td>3.2</td>
</tr>
<tr>
<td>Chinese folk</td>
<td>14</td>
<td>2.8</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>5.1</td>
</tr>
<tr>
<td>Continent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>192</td>
<td>38.6</td>
</tr>
<tr>
<td>Europe</td>
<td>162</td>
<td>32.6</td>
</tr>
<tr>
<td>America</td>
<td>75</td>
<td>15.1</td>
</tr>
<tr>
<td>Oceania</td>
<td>36</td>
<td>7.3</td>
</tr>
<tr>
<td>Africa</td>
<td>7</td>
<td>1.4</td>
</tr>
<tr>
<td>Middle East</td>
<td>25</td>
<td>5.0</td>
</tr>
</tbody>
</table>

4. Data analysis and findings

4.1. Measurement analysis

This study conducted confirmatory factor analysis (CFA) to access reliability, convergent validity and discriminant validity. The convergent validity was assessed by the magnitude of the factor loading of each indicator of latent constructs. As shown in Table 2, the factor loadings of all items also were higher than 0.60 which consider to be acceptable measurement for the construct (Hair et al., 2010). The average variance extracted (AVE) of each construct was above 0.50, thus the convergent validity of this study was adequate. The composite reliability (CR) of all items exceeded 0.70 cut-off values (Chin, 1998), indicating good internal consistency.
Table 2. Results of factor loading and reliability analysis.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Factor Loading</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological experience</td>
<td>tech1, tech2, tech3</td>
<td>0.77, 0.83, 0.81</td>
<td>0.56</td>
<td>0.84</td>
</tr>
<tr>
<td>Local-food experience</td>
<td>food1, food2, food3</td>
<td>0.75, 0.72, 0.82</td>
<td>0.58</td>
<td>0.86</td>
</tr>
<tr>
<td>Health concern</td>
<td>heal1, heal2, heal3</td>
<td>0.82, 0.74, 0.74</td>
<td>0.58</td>
<td>0.81</td>
</tr>
<tr>
<td>Excitement</td>
<td>exci1, exci2, exci3</td>
<td>0.81, 0.84, 0.83</td>
<td>0.60</td>
<td>0.88</td>
</tr>
<tr>
<td>Learned desire</td>
<td>lear1, lear2, lear3</td>
<td>0.74, 0.70, 0.79</td>
<td>0.53</td>
<td>0.82</td>
</tr>
<tr>
<td>Sensory appeal</td>
<td>sens1, sens2, sens3</td>
<td>0.82, 0.79, 0.70</td>
<td>0.60</td>
<td>0.82</td>
</tr>
<tr>
<td>LFIS needs</td>
<td>need1, need2, need3, need4</td>
<td>0.66, 0.75, 0.80, 0.74</td>
<td>0.54</td>
<td>0.83</td>
</tr>
</tbody>
</table>

For descriptive analysis, the mean value (3.77) indicated that international tourists need to use LFIS via mobile devices as presented in Table 3. To test the discriminant validity, the diagonal elements were computed using square root of AVE. The results of correlation analysis showed the significant ($p < 0.01$) in each correlation and all of diagonal elements were larger than their corresponding correlation coefficients. Therefore, the discriminant validity of this study was acceptable (Fornell & Larcker, 1981). Furthermore, the results reported all variance inflation factors (VIF) values were less than the acceptable cut-off values 5.0 (Hair et al., 2010). Thus, this study did not suffer any multicollinearity problem. All the scales met the requirements for testing the structural model.

Table 3. Results of descriptive statistic, VIF and correlation analysis.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>S.D.</th>
<th>VIF</th>
<th>Technology</th>
<th>Food</th>
<th>Healthy</th>
<th>Excite</th>
<th>Learning</th>
<th>Sensory</th>
<th>Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological experience</td>
<td>4.12</td>
<td>0.53</td>
<td>1.31</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local-food experience</td>
<td>3.98</td>
<td>0.71</td>
<td>1.25</td>
<td>0.31**</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health concern</td>
<td>3.46</td>
<td>1.85</td>
<td>1.44</td>
<td>0.54**</td>
<td>0.56**</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excitement</td>
<td>4.12</td>
<td>1.66</td>
<td>1.45</td>
<td>0.53**</td>
<td>0.47**</td>
<td>0.30**</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learned desire</td>
<td>3.86</td>
<td>1.60</td>
<td>1.63</td>
<td>0.44**</td>
<td>0.57**</td>
<td>0.41**</td>
<td>0.42**</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory appeal</td>
<td>3.87</td>
<td>1.74</td>
<td>1.33</td>
<td>0.38**</td>
<td>0.55**</td>
<td>0.31**</td>
<td>0.37**</td>
<td>0.38**</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>LFIS needs</td>
<td>3.77</td>
<td>1.69</td>
<td>1.56</td>
<td>0.43**</td>
<td>0.31**</td>
<td>0.34**</td>
<td>0.32**</td>
<td>0.32**</td>
<td>0.36**</td>
<td>0.73</td>
</tr>
</tbody>
</table>

4.2. Hypothesis testing

In this study, the hypotheses were tested using SmartPLS, which is a professional statistical software. The SmartPLS enables users to do Structural Equation Modelling (SEM) using Partial Least Squares (PLS) method. Fig. 2 showed standardized path coefficients for each hypothesized path. The results indicated that health concern ($B=0.10$, $p$-value < 0.01), learning desire ($B=0.21$, $p$-value < 0.001) and sensory appeal ($B=0.30$, $p$-value < 0.001) had the positive impacts on LFIS needs. Thus, $H1$, $H3$ and $H4$ were supported. Furthermore, the relationship between technical experience and LFIS needs was significant, supporting $H5$ ($B=0.08$, $p$-value < 0.01). However, $H2$ was not supported because the effect of excitement on LFIS needs was not significant at $p$-value > 0.05. Likewise, the result of $H6$ testing indicated that the local-food experience on LFIS needs was not significant at $p$-value > 0.05. Therefore, the structural analysis supported four of the six hypotheses in this study.
5. Discussion and conclusion

Considering motivational factors, there are three motivational factors that influence to international tourists’ needs in the context of LFIS via mobile devices. The first factor is ‘health concern’ that the finding confirms the study of Gendel (2012). Evidently, the international tourists who concerns about their healthy will need LFIS through their mobile devices than others in particular to food-allergic tourists. Therefore, the ‘health concern’ should be considered as a basic factor of motivation in the context of local food (Kim et al., 2009), and the studies in terms of personal trait and food consumption (Kim et al., 2013; Mak et al., 2012; Omar et al., 2015). For the second motivational factor, the ‘learning desire’ of international tourists significantly influences on their LFIS needs as present in Fig 2. The finding of this study indicates that the international tourists who want to learn about food culture and local food, will want to use LFIS than others. This result supports the mentioned statements of Schultz et al. (2012) and Lioutas (2014). Furthermore, the result reveals that ‘sensory appeal’ is the most influencing factor of LFIS needs through mobile devices. Tourists expect the local-food information supporting their needs in terms of taste, spicy level, food and restaurant photos, and food comments. However in this study, the ‘excitement’ is not a factor of LFIS needs on mobile devices. The results show that international tourist’s excitement does not have any impact on their needs LFIS, even though Kim et al. (2009) and Kim et al. (2013) stated the important role of excitement on tourist’s consumption in local food. It means that the different levels of tourist’s excitement in local food do not relate to tourists’ LFIS needs.

Understanding experiential factors in the context of LFIS, the ‘technological experience’ of international tourists has the positive impact on their information needs. In the other words, international tourist who has more technological experience will need to use LFIS for their travel than others. This finding supports to the result of previous studies (Eriksson & Strandvik, 2009; O’Grady et al., 2005). The technological experience of user leads to a sense of comfort, perceived ease-of-use, and willfulness to use technology. In contrast to the other experiential factors, the ‘local-food experiences’ of tourists does not influence to their information needs. It means that international tourists want to use LFIS similarly, although they have the different level of local-food experiences. There are some possible reasons supporting this finding. First, most of local dishes are cooked from the local ingredients and traditional cooking-methods. Then, for unexperienced menus, they still want...
to use the LFIS to support their decisions particularly to allergic food and avoided cooking-method. Another reason is that most international tourists usually travel more than one city. Then they want to acquire the recommendations of nearby restaurants from their current locations, although they already have local-food experience in the other cities.

The findings of this study hold both theoretical and practical implication. In terms of theoretical contribution, this study proposes the framework of tourists’ information needs in the context of LFIS via mobile devices. The study provides understanding for the other researchers about motivational and experiential factors affecting on international tourists’ needs. For practical contribution, this study provides the interesting suggestions for tourism. First, the local-food experience of international tourists is not a factor of their information needs. Most international tourists need to use LFIS for every their travelling, even though they already have some local-food experiences. Therefore, tourism providers should provide the up-to-date content in particular to local restaurants and popular local dishes. Second, the food content in LFIS should be provided based on several of personal traits. For example, allergic food, diet food, organic food, halal food, and vegetarian food. Finally, tourism providers should provide the LFIS via mobile devices even though they have existing LFIS via the other devices such as KIOS or computer.

The limitation of this study is its generalization. In this study, the percentages of respondents in each continent were designed based on the number of international tourist in Southeast Asia. Therefore, this study focused on the large number of respondents from Asia, Europe and America. Even though the data of this study was gathered from international tourists in Thailand, the finding was generality for the future researches which also focus on those three continents. However, the future researches should examine the proposed model to see its validity across their different respondent’s group, in particular of the future works which focus on the international tourists in Middle East and/or Africa.

**Acknowledgements**

The authors wish to express special thanks to Prince of Songkla University for supporting this research by government fund (SCI580885S), and wish to express the gratitude to Suvarnabhumi Airport for place permission to collect data.

**Measurement items and their sources**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical experience</td>
<td>tech1</td>
<td>Usage experience in any mobile application</td>
</tr>
<tr>
<td></td>
<td>tech2</td>
<td>Usage experience in mobile tourist guide</td>
</tr>
<tr>
<td></td>
<td>tech3</td>
<td>Technological usage for travelling (e.g., GPS, website and Google Map)</td>
</tr>
<tr>
<td>Local-food experience</td>
<td>food1</td>
<td>Reading or listening experience about local food</td>
</tr>
<tr>
<td></td>
<td>food2</td>
<td>Tasting experience in local food</td>
</tr>
<tr>
<td></td>
<td>food3</td>
<td>Experiences in local-food fair</td>
</tr>
<tr>
<td>Health concern</td>
<td>heal1</td>
<td>Local food should keep my healthy</td>
</tr>
<tr>
<td></td>
<td>heal2</td>
<td>Local food should contain a lot of fresh ingredients in local area</td>
</tr>
<tr>
<td></td>
<td>heal3</td>
<td>I concern about nutrition when I try local food.</td>
</tr>
<tr>
<td>Excitement</td>
<td>exci1</td>
<td>Experience of local food in its original place make me excited</td>
</tr>
<tr>
<td></td>
<td>exci2</td>
<td>Local food can take me away from daily life I expect excited experience</td>
</tr>
<tr>
<td></td>
<td>exci3</td>
<td>from the other persons</td>
</tr>
<tr>
<td>Learning desire</td>
<td>lear1</td>
<td>I want to increase my knowledge about different cultures</td>
</tr>
<tr>
<td></td>
<td>lear2</td>
<td>I want to discover something new</td>
</tr>
<tr>
<td></td>
<td>lear3</td>
<td>I want to see the things that I don’t normally see</td>
</tr>
<tr>
<td>Construct</td>
<td>Items</td>
<td>Source</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Sensory appeal</td>
<td>sens1 Nice food photo affecting wish for taste</td>
<td>Kim and Eves (2012)</td>
</tr>
<tr>
<td></td>
<td>sens2 Food comments from the other tourists affecting wish for taste</td>
<td>Kim et al. (2013)</td>
</tr>
<tr>
<td></td>
<td>sens3 Kinds of food taste (e.g., sour, spicy, salt and sweet) affecting wish for taste</td>
<td></td>
</tr>
<tr>
<td>Need of LFIS via mobile devices</td>
<td>need1 I want to see local-food information through my mobile devices</td>
<td>Wang et al. (2012)</td>
</tr>
<tr>
<td></td>
<td>need2 I want to receive the recommended restaurants based on my consumed behavior through my mobile devices</td>
<td>Wong et al. (2015)</td>
</tr>
<tr>
<td></td>
<td>need3 I want to read the other tourists’ suggestions through my mobile devices</td>
<td></td>
</tr>
<tr>
<td></td>
<td>need4 I want to share my experiences to others through my mobile devices</td>
<td></td>
</tr>
</tbody>
</table>

References


Learning experiences, job satisfaction and organizational citizenship behaviours: 
the examples of tourism and hospitality students

Tsung-Ju Yang*, Chia-Ying Hsieh

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Abstract

Many students enter universities to learn job skills. Numerous students opt for the bachelor degree further study programs. These students work during the day and study in schools during the night. However, many young people with high education degrees could not find a job in many countries and areas. On the one hand, a high unemployment rate would cause many social problems, such as crime and suicide. On the other hand, many enterprises and employers could not recruit sufficient qualified workers. Without sufficient qualified workers, enterprises would not have enough labor force to produce products or provide services. Consequently, operation becomes inefficient and profits decrease. The mismatch between education and job is an important issue for government officials, employers, and employees. However, studies on the education–job mismatch are still rare. The current researchers study the relationships among learning experiences, self-efficiency, job satisfaction, and organizational citizenship behaviors. They develop a self-reported questionnaire to survey the tourism and hospitality bachelor’s degree further study programs students in Taiwan. The authors collect 253 samples and use the structural equation model method for analysis. The empirical results are as follows. First, learning experiences, including affective, sensory, physical, relational, and creative cognitive experiences, positively affect the students’ self-efficiency, job satisfaction, and organizational citizenship behaviors. Second, students’ self-efficiency positively affects the organizational citizenship behaviors.

Keywords: learning, experiences, self-efficiency, job satisfaction, organizational citizenship behaviors

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1. Introduction

The labor environment is becoming highly competitive in the world. Many employees learn more knowledge and skills and try to find a good job. Some people, especially young people, chose to work during the daytime and study in the school during the night or weekend for some reasons, such as economics or career development planning. Continuing education program provides an opportunity to satisfy the needs of working and studying. More and more students chose the continuing education program to study knowledge and skills and get the diploma in the school.

The previous results shows that learning effort impacts on self-efficacy, then impacts on sale performance (Wang & Netemeyer, 2002). The training would improve problemsolving skills, self-efficacy, positive affect, job satisfaction, and life satisfaction (Ayres & Malouff, 2007). Teachers with greater self-efficacy had greater job satisfaction. (Klassen & Chiu, 2010). In continuing care assistants, self-efficacy may increase the employees’ hope (Duggleby, Cooper et al. 2009). The impacts of employees' self-efficacy are important for organizations, such as service quality and job performance (Sousa, Coelho et al. 2012). Professional competence affects employees' job satisfaction, then job satisfaction affects employees' career development confidence, and job satisfaction mediated...
the relationship between professional competence and career development confidence (Ko, 2012). These results shows that learning experience would impact on the employees' self-efficacy and job satisfaction, and self-efficacy would impact on the employees' job satisfaction.

More and more scandals happened in the business and other organizational environments. Business and organizational psychology literatures should pay more attentions on organizational virtuousness because that organizational virtuousness would impact on some organizational citizenship behaviours (Rego, Ribeiro et al. 2010). Training has positive effects on the service-oriented citizenship behaviours (Nasurdin, Ahmad et al. 2015). Training improve the citizenship behavior (Skarlicki & Latham, 1997). The results show that continuous training or learning would improve employees' organizational citizenship behaviours. Knowledge influence the self-efficacy, then self-efficacy influence organizational citizenship behaviour (Chen & Kao, 2011). There are positive relationships between efficacy and organizational citizenship behaviors, such as altruism, courtesy, conscientiousness, and civic virtue(Dussault, 2006). Job satisfaction plays a mediating role between the relationship of job variety, job significance and organizational citizenship behaviours (Chiu & Chen, 2005). Job satisfaction, procedural justice, and organizational commitment are all correlates of organizational citizenship behavior (Schappe, 1998). Job satisfaction positively impacts on the organizational citizenship behaviors (Foote & Tang, 2008; Gonzalez & Garazo, 2006; Huang, You, & Tsai, 2012). The results shows that learning satisfaction, self-efficacy and job satisfaction are important antecedents of the employees' organizational citizenship behaviors.

However, education-job mismatches have negative effects on wages and other outcomes, and the empirical results show that educational mismatches affect wages strongly and skill mismatches influence on job satisfaction and on-the-job search more than educational mismatches (Allen & van der Velden, 2001). Similarly, Badillo-Amador and Vila (2013) confirms that skill mismatches are more stronger impacts on job satisfaction than education mismatches. Though both skill and education mismatches have negative effects on wages, skill mismatches are more seriously negative on the wage and job satisfaction than education mismatches (Badillo-Amador & Vila, 2013).

There are few researches study the mismatches between education and job in the continuing education programs. There is a need to understand the impacts of learning satisfaction on the self-efficacy, job satisfaction and organizational citizenship behaviours. In summary, the purpose of the study is to explore the students' learning effects of the continuing education program. The researchers build a conceptional model to study the relationship between of learning satisfaction, self-efficacy, job satisfaction and organizational citizenship behaviours.

2. Literature review

2.1. Learning experience, self-efficiency, job satisfaction

The autonomous training influences on students' self-efficacy positively, and both traditional and online training impact on the cognitive component of the consultation competence positively (Aper, Reniers et al., 2012). The students are examined the influence of prior ability, prior knowledge, and work experience on self-efficacy from a business simulation and the results shows that both prior knowledge and prior ability positively influence on the students' self-efficacy (Ineson, Jung, Hains, & Kim (2013). Experiential learning impacts on learning satisfaction positively, then learning satisfaction impacts on career competencies(Kong & Yan, 2014). Learning satisfaction play a mediated role between experiential learning and career competencies and learning satisfaction would increase the career competencies. Empirical results show that three exogenous variables, including of job autonomy, customer demandingness and trait competitiveness, impact on learning effort, and
learning effort impacts on self-efficacy, then positively impacts on sale performance (Wang & Netemeyer, 2002). The scholars agree that Learning could improve the self-efficiency.

Though it is important that on-the-job training and job satisfaction influence on labour productivity, there is little attention (Georgellis & Lange, 2007). After controlling earnings, job and personal characteristics, Georgellis and Lange (2007) indicate that training influence on the job satisfaction of men, but the effect does not true for women, which may result from psychological contract and an occupational lock-in effect for women. The training would improve problemsolving skills, self-efficacy, positive affect, job satisfaction, and life satisfaction of individuals who have low control of work environment (Ayres & Malouff, 2007). In the hotels, training satisfaction, job characteristics, and person-job fit would improve employees' performance, besides, educational trainings could improve the employees' knowledge, skills, work attitudes and performance (Fu, Yang, & Chu, 2014). In the financial services, cognitive-behavioural training improves sales agents' attributional style, job satisfaction, self-esteem, well-being and productivity. (Proudfoot, Corr, Guest, & Dunn, 2009). The study results show that training or learning would impacts on job satisfaction positively.

Job satisfaction would impact on worker's desire to stay and supervisor's support is an important factor to retain low self-efficacy workers (Chen & Scannapieco, 2010). The relationship between worker's job satisfaction and self-efficacy is intensive. In the empirical study, teachers' self-efficacy was examined as determinants factor of their job satisfaction and students' academic achievement. Analyses show that Teachers' self-efficacy influence on their job satisfaction and students' academic achievement positively (Caprara, Barbaranelli et al., 2006). Teachers with greater self-efficacy of classroom management or instructional strategies had greater job satisfaction (Klassen & Chiu, 2010). The results confirm that self-efficacy is a key factor of job satisfaction. In continuing care assistants, hope would influence on job satisfaction and performance positively, in addition, supportive relationships, adequate resources, encouragement by others, and self-efficacy may increase the employees' hope (Duggleby, Cooper et al. 2009). The results confirm that self-efficacy would improve employees' hope, then improvie their job satisfaction. The study proposes the following hypotheses:

H1: Learning experience positively impacts on self-efficacy.
H2: Learning experience positively impacts on job satisfaction.
H3: Self-efficacy positively impacts on job satisfaction.

2.2. The antecedents of organizational citizenship behaviours

Training and compensation both have positive effects on the specifics of service-oriented citizenship behaviors (Nasurdin, Ahmad et al. 2015). Training improve the fairness perceptions and citizenship behavior (Skarlicki & Latham, 1997). The results show that continuous training or learning would improve employees' organizational citizenship behaviours. The study results show that self-efficacy is a better predictor of task performance than political skill, however, political skill is a better predictor of contextual performance than self-efficacy (Jawahar, Meurs et al., 2008). In the case of the police officers, knowledge influence the police officers'self-efficacy, then self-efficacy influence the police officers' organizational citizenship behaviour (Chen & Kao, 2011). There are positive relationships between teachers' teaching efficacy and organizational citizenship behaviors, such as altruism, courtesy, conscientiousness, and civic virtue, and general teaching efficacy related to sportsmanship only (Dussault, 2006). The results show that self-efficacy would increase individual's organizational citizenship behaviour.
Satisfaction with coworkers and affective commitment may increase citizenship behavior in the hospitals (Bolon, 1997). Job variety and job significance both influence on organizational citizenship behaviors positively, and job satisfaction plays a mediating role between the relationship of job variety, job significance and organizational citizenship behaviors (Chiu & Chen, 2005). The results suggest that job characteristics enrich and job satisfaction could increase employees’ organizational citizenship behaviors. Previous researches indicate that job satisfaction, procedural justice, and organizational commitment are all correlates of organizational citizenship behavior, however, the empirical results show that when these three variables were tested concurrently, only organizational commitment accounted for the variance of organizational citizenship behavior (Schappe, 1998). The empirical study of hospitality industry, the results show that job satisfaction directly impacts on organizational citizenship behavior, moreover, job satisfaction mediatead two dimensions of organization service orientation, including of human resource management service encounter practices, on organizational citizenship behavior (Gonzalez & Garazo, 2006). Huang, You, & Tsai (2012) study the hospitals and find that job satisfaction, organization’s ethical climate and organizational commitment could increase nurses’ organizational citizenship behaviors (Huang, You, & Tsai, 2012). Workers’ citizenship behaviors are related to satisfaction with coworkers, supervision, and pay, but not satisfaction with opportunities for advancement, the work itself, or organizational commitment. (Lowery, Beadles, & Krilowicz, 2002). Even though job satisfaction is related to organizational citizenship behaviors, organizational justice is a key factor of both organizational citizenship behaviors and job satisfaction (Nadiri & Tanova, 2010). Foote and Tang (2008) confirm that the relationship between job satisfaction and organizational citizenship behavior is significant, and team commitment moderates the relationship between job satisfaction and organizational citizenship behaviors, when team commitment is high, the relationship between job satisfaction and organizational citizenship behaviors are stronger. The previous literatures show that learning satisfaction, self-efficiency, and job satisfaction all three variables impact on employees’ organizational citizenship behaviours. The study proposes the following hypotheses:

H4: Learning experience positively impacts on organizational citizenship behaviours.
H5: Self-efficiency positively impacts on organizational citizenship behaviours.
H6: Job satisfaction positively impacts on organizational citizenship behaviours.

3. Research method

3.1. Sample and procedure

The researchers use convenient sampling method to collect samples of the continuing education program students whose major is tourism or hospitality in Taiwan. The students of the continuing education program work during the day and study in the school during the night to get their bachelor’s degrees. The researchers use self-report questionnaire and collect 253 samples.

3.2. Measurements

The researchers develop the questionnaires to measure the variables of the study. The items are referred the scales from the previous research. The English items from literatures are translated into Chinese version. The researchers interview many scholars, experts, and students to modify the items and the procedure help respondents to understand the meanings of questions and answer properly. The researchers used 5-point Likert scales descriptions from strongly disagree (=1) to strongly agree (=5).

Learning satisfaction is a student’s evaluations of course learning experience. Learning experience items were adapted from a scale developed by Chen, Hu, Wang and Chen (2011), including of five
dimensions, such as affective, sensory, physical, relational and creative cognitive experiences. Self-efficiency is student’s confidence level of doing the job well. Six items were adopted from Sousa, Coelho and Guillamon-Saorin (2012). Job satisfaction is a student’s evaluations of work environment. Five items developed by Logan and Ganster (2007), including of pay, supervisor, security, social and growth satisfaction. Organizational citizenship behaviors are works’ self-report of their job performance. The scales were adopted from Rego, Ribeiro and Cunha (2010) and the items are including of five dimensions, such as altruism, sportsmanship, courtesy, conscientiousness and civic virtue.

4. Research Results

4.1. Descriptive Statistics

The sample demographics were showed in table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>%</th>
<th>Variable</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>Job experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>101</td>
<td>39.9</td>
<td>Below 3 years</td>
<td>64</td>
<td>25.3</td>
</tr>
<tr>
<td>Female</td>
<td>152</td>
<td>60.1</td>
<td>3–6 years</td>
<td>14</td>
<td>5.5</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>Above 6 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 20 years</td>
<td>77</td>
<td>30.4</td>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21–25 years</td>
<td>162</td>
<td>64.0</td>
<td>Manufacturing</td>
<td>58</td>
<td>22.9</td>
</tr>
<tr>
<td>Above 26 years</td>
<td>14</td>
<td>5.5</td>
<td>Services</td>
<td>114</td>
<td>45.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Others</td>
<td>81</td>
<td>32.0</td>
</tr>
</tbody>
</table>

4.2. Reliability and validity

The authors use SPSS and Amos software to analyze the data. The mean, standard deviation and correlation for each construct are showed in table 2. The Cronbach’s α of the learning experiences dimensions are: affective experiences (.790), sensory experiences (.789), physical experiences (.792), relational experiences (.754) and creative cognitive experiences (.767). The Cronbach’s α of learning experiences is .925. The self-efficiency and job satisfaction scales are one dimension, and the Cronbach’s α of self-efficiency and job satisfaction are .855 and .829. The Cronbach’s α of the organizational citizenship behaviours’ dimensions are: altruism (.830), sportsmanship (.805), courtesy (.818), conscientiousness (.722), and civic virtue (.798). The Cronbach’s α of organizational citizenship behaviours is .922. All Cronbach’s α are higher than .7 (Nunnally, 1978) and indicates that the reliabilities for each variable are acceptable and internal consistencies are well. The authors use confirmatory factor analysis (CFA) to test the convergent validity of the scales (see Appendix, Table 4). The results show that some average variance extracted (AVE) of the scale lower than .5 but all composite reliabilities of the scales are higher than .6 (Fornell & Larcker, 1981) and all factor loadings of indicators are significant (Anderson & Gerbing, 1988). The convergent validities are well. Besides, the Cronbach’s α for each construct were greater than the inter-constructs correlation (Table 2), and the results confirm the discriminant validity of the scales (Gaski & Nevin, 1985).
Table 2. Mean, Standard Deviation, and Correlation.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean</th>
<th>S.D.</th>
<th>Learning Experience</th>
<th>Self-Efficiency</th>
<th>Job Satisfaction</th>
<th>Organizational Citizenship Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Experience</td>
<td>3.720</td>
<td>.484</td>
<td>(.925)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficiency</td>
<td>3.749</td>
<td>.569</td>
<td>.510**</td>
<td>(.855)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>3.570</td>
<td>.607</td>
<td>.612**</td>
<td>.439**</td>
<td>(.829)</td>
<td></td>
</tr>
<tr>
<td>Organizational Citizenship</td>
<td>3.804</td>
<td>.502</td>
<td>.646**</td>
<td>.726**</td>
<td>.489**</td>
<td>(.922)</td>
</tr>
</tbody>
</table>

Note: The numbers in the diagonal row are Cronbach’s α coefficient; inter-construct correlations are shown off the diagonal; **p < 0.01.

4.3. Model analysis

The authors use structural equation modeling (SEM) method to test the relationship among the learning experience, self-efficiency, job satisfaction and organizational citizenship behaviours in Taiwan. The samples are tourism and hospitality students. The authors evaluated the structural model fit (Bagozzi & Yi, 1988) and the indexes of the model fit were: $\chi^2 = 1787.055$, d.f. = 973, $\chi^2$/d.f. = 10837, CFI = .864, GFI = .766, and RMR = .034. The goodness of fit for the proposed model are well.

Table 3 shows the hypothesis test results. The results confirm that the impacts of learning experience on self-efficiency ($\beta = .583$, t = 5.984, p < .001), job satisfaction ($\beta = .642$, t = 5.633, p < .001), and organizational citizenship behaviours ($\beta = .386$, t = 4.050, p < .001) are all significant. Therefore, the hypothesis 1 and hypothesis 2 and hypothesis 4 of the study are supported. Improving the students’ learning experiences, including affective, sensory, physical, relational and creative cognitive experiences, would increase the students' self-efficiency, job satisfaction and organizational citizenship behaviours, including altruism, sportsmanship, courtesy, conscientiousness, and civic virtue. Both impacts of self-efficiency on job satisfaction, and job satisfaction on organizational citizenship behaviours are not significantly. The hypothesis 3 and hypothesis 6 of the study are not supported. However, the impact of self-efficiency on organizational citizenship behaviours is significant ($\beta = .629$, t = 7.418, p < .001), therefore, the hypothesis 5 of the study is supported. The results showed increasing the students' self-efficiency could improve the students' organizational citizenship behaviours.

Table 3. Hypothesis tests.

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
<th>t-value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Learning Experience $\rightarrow$ Self-Efficiency</td>
<td>.583***</td>
<td>5.984</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 Learning Experience $\rightarrow$ Job Satisfaction</td>
<td>.642***</td>
<td>5.653</td>
<td>Supported</td>
</tr>
<tr>
<td>H3 Self-Efficiency $\rightarrow$ Job Satisfaction</td>
<td>.147</td>
<td>1.913</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H4 Learning Experience $\rightarrow$ Organizational Citizenship behaviours</td>
<td>.386***</td>
<td>4.050</td>
<td>Supported</td>
</tr>
<tr>
<td>H5 Self-Efficiency $\rightarrow$ Organizational Citizenship behaviours</td>
<td>.629***</td>
<td>7.418</td>
<td>Supported</td>
</tr>
<tr>
<td>H6 Job Satisfaction $\rightarrow$ Organizational Citizenship behaviours</td>
<td>-.033</td>
<td>-.412</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

*** p < 0.001;

5. Conclusion

5.1. Conclusions and discussions

The authors survey the tourism and hospitality students in Taiwan and study the relationship among learning experience, self-efficiency, job satisfaction and organizational citizenship behaviours. The empirical study confirms that: First, learning experience impacts on students’ self-efficiency, job satisfaction and organizational citizenship behaviours. The university improve the students’ learning experience, including affective, sensory, physical, relational and creative cognitive experiences, could
increase the students’ self-efficiency, job satisfaction and organizational citizenship behaviours. The school teachers or staff should encourage the students learn hard (affective), feel accomplishment (sensory), prepare social and management skill (physical), desire to influence people (relational) and strengthen abilities (creative cognitive). When the students learn experiences are well in the school, the confident would be better, and satisfied their work environments, such as social and growth. Then, the students’ work performance, such as organizational citizenship behaviours, would be better.

Second, though the impacts of students’ self-efficiency on job satisfaction and job satisfaction on organizational citizenship behaviours, the impacts of students’ self-efficiency on organizational citizenship behaviours is significantly. The improving of students’ self-efficiency would improve the students’ work performance, such as altruism, sportsmanship, courtesy, conscientiousness, and civic virtue.

5.2 Limitations and Future Research

The research limitations are: First, the author study the student samples in Taiwan, and the results may be different in other countries. Future researches should study other samples. Second, the authors study the relationship among learning experience, self-efficiency, job satisfaction and organizational citizenship behaviours, other factors would impact on the students’ learning experience. Future studies could explore the impacts of other variable. Third, the authors use cross-sectional method and the results may be biased. Future researchers could use longitudinal method to survey the relationship between students and school.

Acknowledgement

We thank Minghsin University of Science and Technology for funding this study (MUST-105 SM-2).

Appendix A.

Table 4. The results of confirmatory factor analysis.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Standardized Factor Loading</th>
<th>Error Variance</th>
<th>t-Value</th>
<th>AVE</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Affective Experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE 1</td>
<td>.683</td>
<td>0.534</td>
<td></td>
<td>.580</td>
<td>.804</td>
</tr>
<tr>
<td>AE 2</td>
<td>.863</td>
<td>0.255</td>
<td>11.307</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE 3</td>
<td>.728</td>
<td>0.470</td>
<td>9.141</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2: Sensory Experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE 1</td>
<td>.686</td>
<td>0.529</td>
<td>8.730</td>
<td>.497</td>
<td>.797</td>
</tr>
<tr>
<td>SE 2</td>
<td>.775</td>
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<td></td>
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<tr>
<td>SE 3</td>
<td>.721</td>
<td>0.480</td>
<td>10.712</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE 4</td>
<td>.629</td>
<td>0.604</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 3: Physical Experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE 1</td>
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<td>.490</td>
<td>.793</td>
</tr>
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<td>.722</td>
<td>0.479</td>
<td>10.155</td>
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<td></td>
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<tr>
<td>PE 3</td>
<td>.701</td>
<td>0.509</td>
<td>9.582</td>
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<tr>
<td>PE 4</td>
<td>.701</td>
<td>0.509</td>
<td>9.472</td>
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<td></td>
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<tr>
<td>Factor 4: Relational Experiences</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>RE 1</td>
<td>.715</td>
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<td>9.476</td>
<td>.507</td>
<td>.755</td>
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<td>RE 3</td>
<td>.658</td>
<td>0.567</td>
<td></td>
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</table>

Table 4. The results of confirmatory factor analysis.
(cont.)

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Standardized Factor Loading</th>
<th>Error Variance</th>
<th>t-Value</th>
<th>AVE</th>
<th>Composite Reliability</th>
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<tbody>
<tr>
<td>Factor 5: Creative Experiences</td>
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<td>CE 1</td>
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<td>9.553</td>
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<tr>
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<td>CE 4</td>
<td>.636</td>
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<td>Self-Efficiency</td>
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<td></td>
<td></td>
<td>.499</td>
<td>.856</td>
</tr>
<tr>
<td>SF</td>
<td>0.695</td>
<td>0.517</td>
<td>-</td>
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</tr>
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<table>
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<tr>
<th>Factor 1: Altruism</th>
<th>0.572</th>
<th>0.841</th>
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<tr>
<td>Al 1</td>
<td>0.658</td>
<td>0.567</td>
</tr>
<tr>
<td>Al 2</td>
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</tr>
<tr>
<td>Al 3</td>
<td>0.816</td>
<td>0.334</td>
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<td>0.708</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Factor 2: Sportsmanship</th>
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<th>0.807</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sp 1</td>
<td>0.651</td>
<td>0.576</td>
</tr>
<tr>
<td>Sp 2</td>
<td>0.718</td>
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<td>Sp 3</td>
<td>0.755</td>
<td>0.430</td>
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<table>
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<th>0.820</th>
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<td>Cou 1</td>
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<td>0.350</td>
</tr>
<tr>
<td>Cou 2</td>
<td>0.802</td>
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<td>Con 1</td>
<td>0.686</td>
<td>0.529</td>
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<td>0.740</td>
<td>0.452</td>
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<td>0.630</td>
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<table>
<thead>
<tr>
<th>Factor 5: Civic Virtue</th>
<th>0.571</th>
<th>0.799</th>
</tr>
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<tbody>
<tr>
<td>CV 1</td>
<td>0.724</td>
<td>0.476</td>
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<td>CV 2</td>
<td>0.772</td>
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<table>
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<tr>
<th>Learning Experience</th>
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<tbody>
<tr>
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<td>Physical</td>
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<td>Creative</td>
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<table>
<thead>
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<th>Organizational Citizenship behaviours</th>
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<th>0.943</th>
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<tbody>
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<tr>
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<td>Courtesy</td>
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<td>Conscientiousness</td>
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<tr>
<td>Civic Virtue</td>
<td>0.940</td>
<td>0.116</td>
</tr>
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</table>

**References**


The study of flight attendants’ stress management in airlines: the case of Iranian airlines
Masoomeh Bolbol
Mahidol University International College, Thailand

Abstract

In contrast to the beautiful and shining outfit of a flight attendant is the unbelievable stress arising from various aspects of airline work perceived to be physically threatening and emotionally devastating. Therefore, flight attendants are required and expected to handle such a stress-provoking job. This stress management would be considerably effective if the main cause of work stress, its related symptoms, and methods of coping are known and investigated. Therefore, this study attempts to identify the main cause of work stress and the most frequent stress-related symptoms experienced by Iranian flight attendants during flight. The evaluation and methods that such work-related stress is managed are also analyzed. For this purpose, the qualitative and quantitative data collection methods were conducted through in-depth interviews and questionnaire surveys to investigate the research questions. Results of the study demonstrated that causes of stress are peers, customers, and the working conditions dominating the work climate. Furthermore, the most frequent symptom caused by stress among Iranian flight attendants is fatigue, and backache and headache are the second and third frequent symptoms, respectively. Anger, worry, loneliness, powerlessness, frustration, depression, crying, and yelling are the other symptoms arranged in the order of frequency. Drinking coffee or soda, talking with someone who the flight attendants can trust onboard, and using relaxation techniques are the most frequent coping methods. Furthermore, eating, taking aspirin, performing exercise, and using medications are the other coping methods used by the flight attendants to relief their stress. Finally, results show that the airline failed to implement a specific well-organized program for stress management because of miscommunication between the airline and its aircrew specifically its flight attendants. This miscommunication would result in low productivity among the aircrew and their main cause of work leave requests.

Keywords: flight attendants, stress management, stress, Iranian airlines

1. Introduction

Flight attendants who work for commercial airline companies’ general job role is to monitor passenger’s compliance with airline safety rules, inform passengers regarding flight details or changes, assist passengers with basic requests and serve food and drink. The flight attendant also has various important responsibilities before passengers’ board and as they serve people during the flight. Clearly, basic customer service skills and effective personal communication skills are very much required. There are necessary abilities to handle the job well but the most important skill is being able to handle the stress, and generally being a social person. Generally speaking, it has been observed and reported that work stress is already high for those who work in this position. Therefore, it seems to be an essential area of interest for research for the researcher to learn more and contemplate on increasing the efficiency of the airline crews especially flight attendants in facing such a devastating pressure which emanates from stress provoking job. Minimal research has been performed concerning the impact of stress on the Iranian aviation industry. The case seems to reflect more demanding in aviation industry particularly in Iran. The Iranian airlines have been facing different challenging issues regarding their management of human capital. This became worse when the US sanction was
imposed against Iran in general and Iranian airlines in particular. The fact is that among existing airlines and their crews in Iran, the most prestigious and well organized ones are Mahan Air and Qeshm air which welcomed the idea of developing their professionalism in helping their personnel who are taken into consideration for the purpose of the current study.

2. Statements of the problem

Although being a flight attendant seems the beautiful and shining in the face, there is an unbelievable stress arising from various aspects of the airline work which is perceived to be physically threatening as well as emotionally devastating to those involved with the job. Therefore, flight attendants are required and expected to handle such stress provoking job. This stress management would be more effective if the main causes of work stress, its related symptoms, and methods of coping it are known and investigated. So the current study tries to identify the main causes of work stress as well as most frequent stress related symptoms which Iranian flight attendants experience during flight. The evaluation and ways such work related stress is managed also are examined.

3. Research objectives

There are four objectives that this study aims to study.

1. To identify, main cause of work stress within Iranian flight attendants during flight in order to suggest some solutions to improve the current condition.

2. To identify, most frequent stress related symptoms which Iranian flight attendants experience during flight and those coping methods they use to relief those symptoms; in order to analyze if those symptoms and methods are healthy, helpful and beneficial for both flight attendants and airlines in long-term or not.

3. To examine how flight attendants evaluate stress management programs of their airline if applicable.

4. To recommend some useful stress management methods which are currently being used in other International airlines in order to decrease in-flight stress-related symptoms of Iranian flight attendants if applicable.

4. Research questions

This study is designed to be of exploratory nature as it aims to explore and investigate the stress issue and stress management programs within flight attendants working with Iranian airlines. In order to fulfill research objectives that involve with work stress classification and assessment of stress management programs, the research questions are as follows.

1. What are the sources of work stress within Iranian flight attendants during the flight?
2. What are the most frequent symptoms which Iranian flight attendants experience during the flight?
3. What are coping/relaxation methods Iranian flight attendants use to relief their stress during flight?
4. What operational guidelines do Iranian airlines employ to deal with flight attendants’ work stress, if any?

5. Review of related literature

In order to achieve an enhanced and profound understanding of the background of the research, the following section is going to review, summarize and synthesize existing literature with relevance to the topic.
5.1. Stress

The effect of stress can be both physical and/or psychological. Stress has been defined by stress researchers as the ‘silent killer’, since high level of stress leads to hormonal imbalance in body; following by that, different body organs will start to dysfunction. Being in such an imbalance state for a long period of time creates health problems and might lead to life taking disease like cancer. According to Deckro, et al. (2002) and others, medical experts claim that there is a very strong link between stress and personal health, and concluded that health related effects are not only very widespread but also extremely serious; they can play a major role in determining the physical and/or psychological health of an individual, as well as the success of an organization.

5.2. Stress within flight attendants

Within airline industry, Flight Attendant's job is both physically and emotionally demanding. They are on their feet during most of the flight and under pressure to complete their tasks within the scheduled flight time. At times they have to serve meals and pour drinks under turbulent flying conditions. Despite stress or fatigue, they are expected to deal pleasantly with passengers of all personality types, including those who are difficult or rude. Although Flight Attendants enjoy the benefits of travel, they also may have to live out of suitcases for weeks at a time. They may be scheduled to fly at any hour, weekends and holidays.

Health problems has increased between cabin attendants recently; long working hours without enough rest created serious impacts on physical and mental health of flight crews specially flight attendants. Dehydration and Mental problems caused by frequent flights, is one of the most popular of those disorders. Referring to a research by T Ellingsen, A Bener, AA Gehani(2007), there are five major problems faced by the Flight Attendants Stress (88.85%), Back pain (72.65%), Loss of memory (67.47%), Headaches (58.42%), Loss of hearing (51.37%), 88.85% of flight attendants have reported feeling stressed 'often' or 'sometimes'. Many participants felt that if the work environment were more employee-friendly their stress level might come down. Back pain was reported by 72.65% of FAs which, according to them, could be largely remedied by being provided with better equipment and user-friendly galleys. Loss of memory was prevalent in 67.47% of FAs studied. 58.42% of FAs suffer from headaches. Stress, loss of memory and headaches seem to share the same etiology such as hypoxia, jetlag and irregular sleep. Diminished hearing, prevalent in 51.37% of FAs, was not a major cause of worry but was largely perceived as an inconvenience.

5.3. Stress within Iranian flight attendants

First of all, low salary payment is the most issue which the flight crews are suffering from in Iran; High pressure on airlines as a result of economic crises of country and drop of National currency due to sanctions on Iran Central bank, Tough sanctions on civil aviation, increased fuel prices, makes it unable to pay world standard salary to flight crews.

Secondly, excessive working time is another important issue to concern; imposed sanctions grounded more than 10 aircrafts of Iranian airlines. Lake of access to spare parts of aircrafts, Lake of enough aircrafts to use in Iranian navigation system, has put pressure on human resources specially flight attendants.

Finally, physical and mental problems caused by frequent flights, are one of the most popular issues within Iranian flight attendants.
5.4. Stress management in airlines

Stress management is an important skill for aviation personnel to hone so that they adequately cope with stress and prevent it from overwhelming their ability to respond properly at work. It consists of recognizing the potential signs and symptoms of stress, being proactive in removing the cause of stress in emergency situations, removing yourself from the stressful situation by knowing one's own capability, prioritizing actions in the cabin, not to be over focused in finishing the mission regardless of the situation, being current with all existing procedures and familiar at the workplace and rendering the correct supervision by providing feedback to management if the deadline is impossible to attain.

6. Coping style

Coping style is behavioral or cognitive responses that people use to manage stress which depend on individual's perception and past experiences. Lazarus and Folkman (1984) defined coping as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person. Meanwhile, Schuler (1984) defines coping as a process of analysis and evaluation to decide how to protect oneself against the adverse effects of any stress and its associated negative outcomes. Thus, coping is individual's attempt behavior which conducts to manage encountered problems or conditions that he perceived as threats in order to stop, relieve or reject.

Coping behaviors may be directed externally or problem-focused and internally or emotion-focused. To clarify, problem-focused coping refers to efforts to manage, improve, or change the problem environment causing the stress, whilst emotion-focused coping refers to attempts, thoughts or actions which made to lessen emotional impact of stress (Bosworth, Bastian, Rimer, & Siegler, 2003). This coping is generally soothing in the sense that such coping does not actually alter the threatening but make the person feel better. Examples of problem-focused coping include problem-solving activities, seeking information about what to do, holding back from impulsive and premature actions, and confronting difficulty. Whereas those of emotion-focused coping may include behaviors such as seeking others' company, cognitive responses such as denial of the true situation, and looking optimistically at the problem (Straus, et al., 2006).

7. Research design

This study integrated the secondary data which are job stress literature, as well as the primary data which include the in-depth interview and survey. In so doing, the research applied mixed-method approach which means using both qualitative method and quantitative method.

By using qualitative method, the study has conducted an in-depth interview with human resource managers in order to gain in-depth information and their perspective on the topic of stress management program, whether it is offered by airline or not.

By applying quantitative method, the study has distributed structured questionnaires among Flight attendants with the purpose of investigating 1) demography: age and gender 2) types of work stress which flight attendants encounter 3) the evaluation of in-flight stress management program perceived by flight attendants and 4) individual coping styles which flight attendants use to handle with stress.

8. Population and sample size for questionnaire survey

The target population was the crew of the airlines. The sample has not just been focused of flight attendant of one airline. A complete random sample has been drawn out of the entire crew currently
working for Iranian airlines. This has been ensured that no bias responses are recorded or no distinct segment of the population is missed out.

For the sample size of questionnaire distribution, a simplified formula Yamane’s equation of Sample Size Determination (Yamane, 1967) is applied. This formula is used to calculate the sample size for 95% confidence level. The result for this study was 400 informants.

9. Data collection and data analysis

For primary data, a letter describing the purpose and details of this study has been firstly sent to Human Resource (HR) Departments of Mahan air and Qeshm air to acquire permission to conduct the research and collect employee data at the airline. After permission is approved, primary data collected through survey and in-depth interview to obtain qualitative data. Also, audio recording and note-taking has been used while doing the interview with the permission of voluntarily granted by participants. The subjects ensured that they are free to withdraw from the participation at any time. Moreover, their privacy and confidentiality are protected throughout the data collection processes and afterwards. The recorded data will be terminated immediately after the researcher officially passes the final defense.

This study combines two methods of data analysis. First, qualitative data obtained from in-depth interviews will be analyzed by content analysis technique to find out how airline managements manage in-flight work stress within their flight attendants. Second, quantitative data obtained from questionnaires will be analyzed by computer program called the Statistical Package for the Social Sciences (SPSS) computer program. The descriptive statistics including means, median, mode, frequency, standard deviation, and percentage distribution will be calculated to explain employees’ demography, types of work stress, the symptoms that flight attendants experience during flight, the copying methods that flight attendants use to reduce their work stress, the evaluation of airline’s stress management program. Finally, ANOVA analysis method has been used to find out whether the level of stress is the same among flight attendants with different demographic characteristics.

10. Thesis hypothesis

The researcher derived six statistical hypotheses from the conceptual framework in figure 3.1 and they are:

H1o: Weather the level of stress is the same throughout the different personnel and their respective positions.
H1a: Weather the level of stress is different throughout the different personnel and their respective positions.

H2o: Weather the level of stress is the same throughout the different personnel and their respective age.
H2a: Weather the level of stress is different throughout the different personnel and their respective age.

H3o: Weather the level of stress is the same throughout the different personnel and their respective gender.
H3a: Weather the level of stress is different throughout the different personnel and their respective gender.
H4o: Weather the level of stress is the same throughout the different personnel and their respective marital status.
H4a: Weather the level of stress is different throughout the different personnel and their respective marital status.

H5o: Weather the level of stress is the same throughout the different personnel and their respective experience.
H5a: Weather the level of stress is different throughout the different personnel and their respective experience.

H6o: Weather the level of stress is the same throughout the different personnel and their respective income.
H6a: Weather the level of stress is different throughout the different personnel and their respective income.

11. Summary and findings

In this research, the researcher applied 364 samples of primary data collected by the distribution of questionnaires. The researcher conducted the research in the months of February though June 2016. Table 11.1 will show a summary of the demographic factors.

Table 11.1 Summary of Demographic Factors.

<table>
<thead>
<tr>
<th>Demographic Factor</th>
<th>Characteristics</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>30-40</td>
<td>268</td>
<td>76.1</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>208</td>
<td>57.1</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>355</td>
<td>88.3</td>
</tr>
<tr>
<td>Monthly income</td>
<td>Below 1000 USD</td>
<td>208</td>
<td>60.5</td>
</tr>
<tr>
<td>Working experience</td>
<td>Over 5 years</td>
<td>252</td>
<td>70.0</td>
</tr>
<tr>
<td>Employee position</td>
<td>Senior FA</td>
<td>200</td>
<td>55.6</td>
</tr>
</tbody>
</table>

11.2. Summary of factors which are major causes of stress within Iranian FA

Research finding data has been showed that Iranian cabin crew 1: overall perception about stress is high and that is the main factor of stress within them. 2: Overlapping responsibilities problems, 3: Family pressure about working hours and not getting enough support from co-workers during flights together are third main cause of stress within flight attendants. 4: Conflict in cabin coordination and peers attitudes together are forth main causes of stress. 5: Issues, troubles and complain caused by customers is the fifth main reason of stress. Stress caused by6: workload or too much to do-too little time is the sixth reason. 7: Stress caused by aircraft problems is the seventh factor and 8: weather and turbulences is the eighth and last factor causing stress amongst Iranian flight attendants during flight. (Table 11.2)
Table 11.2. Result analysis of stress factors, base on frequency. (f)

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Most frequent Answer(f)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Overlapping responsibility problems</td>
<td>84</td>
<td>96</td>
<td>96*</td>
<td>44</td>
<td>28</td>
<td>Agree(96)</td>
</tr>
<tr>
<td>2. Work load</td>
<td>24</td>
<td>48</td>
<td>68</td>
<td>136*</td>
<td>88</td>
<td>Disagree(136)</td>
</tr>
<tr>
<td><strong>Interpersonal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. My overall perception of stress is very high</td>
<td>64</td>
<td>104*</td>
<td>112*</td>
<td>28</td>
<td>56</td>
<td>Neither agree or disagree(112)</td>
</tr>
<tr>
<td>2. Feel family-pressure about working hours</td>
<td>84*</td>
<td>96</td>
<td>48</td>
<td>92</td>
<td>40</td>
<td>Agree(96)</td>
</tr>
<tr>
<td>3. Peers</td>
<td>28</td>
<td>92</td>
<td>116*</td>
<td>44</td>
<td>64</td>
<td>Neither agree or disagree(116) Agree(92)</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Weather/ Turbulences</td>
<td>36</td>
<td>36</td>
<td>52</td>
<td>96</td>
<td>144*</td>
<td>Strongly disagree(144)</td>
</tr>
</tbody>
</table>

11.3. Summary of symptoms which Iranian FA experience during flights

The research finding data has been showed that the most frequent symptom caused by stress within Iranian Flight attendants is Fatigue. The second most frequent is Backache. Headache is the third factor. Anger, Worrying, loneliness, powerlessness, frustration, depression, crying and yelling are the other symptoms that Iranian flight attendants experience during flights, in order of frequency. Table 11.3 show a summary of stress related symptoms arranged by frequency.

Table 11.3 Frequency of stress symptoms.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physiological</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td>256</td>
<td>70.3</td>
<td>1</td>
</tr>
<tr>
<td>Backaches</td>
<td>172</td>
<td>47.3</td>
<td>2</td>
</tr>
<tr>
<td>Headache</td>
<td>160</td>
<td>44.0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Psychological</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>120</td>
<td>33.0</td>
<td>1</td>
</tr>
<tr>
<td>Worrying</td>
<td>104</td>
<td>28.6</td>
<td>2</td>
</tr>
<tr>
<td>Loneliness</td>
<td>72</td>
<td>19.8</td>
<td>3</td>
</tr>
<tr>
<td>Powerlessness</td>
<td>68</td>
<td>18.7</td>
<td>4</td>
</tr>
</tbody>
</table>
According to table 11.3, Fatigue is the first most popular physiological stress symptom 256 (70.3) that respondents experience during flight. Backache 172(47.3) is the second most popular symptom and Headache 160 (44.0) is the third popular symptoms that respondents experience during flight. Furthermore, number of 120 (33.0) respondents believed that anger is one of the most popular psychological symptom/feeling that they experience when they feel stressed during flight. Worrying 104 (28.6) and Loneliness 72 (19.8) are second and third most popular stress symptoms within respondents. Powerlessness 68 (18.7), Frustration 60 (16.5), depression 56 (15.4), Crying 44(12.1) and yelling 24 (6.6) are the rest of psychological symptoms in row.

11.4. Summary of coping methods that Iranian FA practice to reduce their in-flight stress

The research findings have been showed that the most popular coping method that Iranian Flight attendants use to relief their stress during flight is drinking coffee of coke. The second popular method is talking with someone that they know or they can trust onboard. The third popular method is using relation techniques. Furthermore, eating, taking aspirin, exercise, using medications in order are the rest of coping methods they use to relief their stress. Crying is the least coping method they choose and a minimum number of cabin crew would do nothing when they face during flight. Table 11.4 will show a summary of coping methods.

Table 11.4. Frequency of copying methods using Frequency and Percentage.

<table>
<thead>
<tr>
<th>Coping behavior</th>
<th>Frequency(f)</th>
<th>Effectiveness Percentage (%)</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drink Coffee/Coke</td>
<td>252</td>
<td>69.2</td>
<td>1</td>
</tr>
<tr>
<td>Talking with someone I know</td>
<td>192</td>
<td>52.7</td>
<td>2</td>
</tr>
<tr>
<td>Using relaxation techniques</td>
<td>156</td>
<td>43.3</td>
<td>3</td>
</tr>
<tr>
<td>Eating</td>
<td>140</td>
<td>38.5</td>
<td>4</td>
</tr>
<tr>
<td>Taking Aspirin</td>
<td>120</td>
<td>33.0</td>
<td>5</td>
</tr>
<tr>
<td>Exercise</td>
<td>96</td>
<td>26.4</td>
<td>6</td>
</tr>
<tr>
<td>Using tranquilizers/Medications</td>
<td>68</td>
<td>23.3</td>
<td>7</td>
</tr>
<tr>
<td>Crying</td>
<td>60</td>
<td>16.5</td>
<td>8</td>
</tr>
<tr>
<td>Doing nothing</td>
<td>20</td>
<td>5.5</td>
<td>9</td>
</tr>
</tbody>
</table>

According to table 11.4, Most of the copying and behavioral impacts of in-flight stress within respondents are emotion-focused. The most popular copying behavior that respondents choose to reduce or relief their in-flight stress is drinking Coffee/coke 252 (69.2). The second is talking with someone they know192 (52.7), third is using relaxation techniques 156 (43.3). Other copying behaviors including eating 140 (38.5), taking Aspirin 120 (33.0), exercise 96 (26.4) using tranquilization/medications 68 (23.3), crying 60 (16.5), doing nothing 20(5.5).
11.5. Summary of organization stress management methods

The research findings have been revealed some clues about how flight attendants evaluate stress management programs of their airline. Table 4 shows a summary of this evaluation. Finding shows that cabin supervision 144 (42.9%) is the main source of stress for Iranian flight attendants base of frequency.

Table 11.5. Summary of Iranian FA evaluation of stress management programs in their airline.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Top ranked reply</th>
<th>Frequency(f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is work culture supportive in your organization?</td>
<td>Sometimes</td>
<td>164</td>
<td>49.4</td>
</tr>
<tr>
<td>How often you face stress Situation in your organization?</td>
<td>Sometimes</td>
<td>184</td>
<td>52.9</td>
</tr>
<tr>
<td>Most of your stress is related to:</td>
<td>Supervision</td>
<td>144</td>
<td>42.9</td>
</tr>
<tr>
<td>How do you feel while working in the organization?</td>
<td>Satisfied</td>
<td>168</td>
<td>48.3</td>
</tr>
<tr>
<td>Have you taken leave in the past 12 months due to work related stress?</td>
<td>6-10 days/Year</td>
<td>104</td>
<td>46.4</td>
</tr>
<tr>
<td>Please estimate the average number of hours per week that you work.</td>
<td>40-50 Hours/week</td>
<td>272</td>
<td>80.0</td>
</tr>
<tr>
<td>Please indicate total workload has changed during last three years.</td>
<td>Increased</td>
<td>152</td>
<td>46.3</td>
</tr>
<tr>
<td>Whom do you report/share if you have any problems in your work?</td>
<td>Flight Purser</td>
<td>104</td>
<td>31.7</td>
</tr>
<tr>
<td>Does your organization have any stress management plan for flight attendants?</td>
<td>No</td>
<td>292</td>
<td>89.0</td>
</tr>
</tbody>
</table>

According to table 11-5, Iranian flight attendants believe that their organization is sometimes supportive 164(49.4) and also sometimes they feel stress working in airline184 (52.9). In addition, they believe that most of their stress is coming from Supervision 144(42.9).

Meanwhile they feel satisfied working in Iranian airlines168 (48.3). Furthermore, they take six to ten leave days 104(46.4) due to flight stress within a year. They also work 40 to 50 hours per week 272(80.0) and they believe that work load has been increased since last three years. Lastly, they report their work problems with Flight purser 104(31.7) during flight. In overall, Iranian flight attendants believe that their airline doesn’t have any stress management plan292 (89.0) for them.
### 11.6. Summary of Hypotheses Testing

The researcher used ANOVA to test the relationship between hypotheses. A summary of the findings from the hypothesis testing is as follows:

Table 11.6.1. One way ANOVA test hypothesis 1.

<table>
<thead>
<tr>
<th>Rank</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jr. Flight Attendant</td>
<td>60</td>
<td>3.0404</td>
<td>.80888</td>
<td>.10443</td>
<td>2.8314</td>
<td>3.2493</td>
<td>1.80</td>
</tr>
<tr>
<td>Senior Flight Attendant</td>
<td>200</td>
<td>2.8866</td>
<td>.80987</td>
<td>.05727</td>
<td>2.7736</td>
<td>2.9995</td>
<td>1.40</td>
</tr>
<tr>
<td>Flight Purser</td>
<td>92</td>
<td>3.2033</td>
<td>.93116</td>
<td>.09708</td>
<td>3.0104</td>
<td>3.3961</td>
<td>1.60</td>
</tr>
<tr>
<td>Flight Safety and Control Instructor</td>
<td>8</td>
<td>*4.4000</td>
<td>.10690</td>
<td>.03780</td>
<td>4.3106</td>
<td>4.4894</td>
<td>4.30</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>3.0268</td>
<td>.86723</td>
<td>.04571</td>
<td>2.9369</td>
<td>3.1167</td>
<td>1.40</td>
</tr>
</tbody>
</table>

### ANOVA BY RANK

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>21.894</td>
<td>3</td>
<td>7.298</td>
<td>10.472</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>248.108</td>
<td>356</td>
<td>.697</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>270.002</td>
<td>359</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 1 is rejected. There is a difference based on ranking; the highest mean for table 11.6.1, belongs to the flight safety and control instructor (M= 4.40, S.D= 0.10), who also have the lowest standard deviation which means he has higher level of stress compare with other positions in flight. The lowest mean belonged to senior flight attendant which it means flight attendants in this position has lower level of stress compare to other positions (M=2.88, S.D=0.80)
Table 11.6.2. One way ANOVA test hypothesis 2.

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-25</td>
<td>60</td>
<td>3.2320</td>
<td>.89398</td>
<td>.11541</td>
<td>3.0011</td>
<td>3.4630</td>
<td>1.80</td>
</tr>
<tr>
<td>26-30</td>
<td>8</td>
<td>3.0167</td>
<td>.33853</td>
<td>.11969</td>
<td>2.7336</td>
<td>3.2997</td>
<td>2.70</td>
</tr>
<tr>
<td>31-40</td>
<td>268</td>
<td>2.9779</td>
<td>.83778</td>
<td>.05118</td>
<td>2.8772</td>
<td>3.0787</td>
<td>1.40</td>
</tr>
<tr>
<td>41-50</td>
<td>16</td>
<td>3.5938</td>
<td>1.07026</td>
<td>.26757</td>
<td>3.0234</td>
<td>4.1641</td>
<td>2.30</td>
</tr>
<tr>
<td>Total</td>
<td>352</td>
<td>3.0501</td>
<td>.86175</td>
<td>.04593</td>
<td>2.9598</td>
<td>3.1404</td>
<td>1.40</td>
</tr>
</tbody>
</table>

ANOVA BY AGE

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>8.120</td>
<td>3</td>
<td>2.707</td>
<td>3.730</td>
<td>.012</td>
</tr>
<tr>
<td>Within Groups</td>
<td>252.536</td>
<td>348</td>
<td>.726</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>260.656</td>
<td>351</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 2 is rejected. There is a difference; Base on age, the result from Table 11.6.2; the researcher found that the highest mean belonged to ages 41-50 old (M=3.59, S.D=1.07), and the lowest mean to the age category 31-40 old (M=2.97, S.D=0.83). It means flight attendants who are between 41-50 years old experience higher level of stress during flight and flight attendants who are between 26-30 years old experience lower levels of stress based on age factor.
Table 11.6.3. One way ANOVA test hypothesis 3.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>140</td>
<td>3.2610</td>
<td>.94411</td>
<td>.07979</td>
<td>3.1032 - 3.4187</td>
<td>1.90</td>
<td>4.90</td>
</tr>
<tr>
<td>FEMALE</td>
<td>208</td>
<td>2.8957</td>
<td>.79456</td>
<td>.05509</td>
<td>2.7871 - 3.0043</td>
<td>1.40</td>
<td>4.50</td>
</tr>
<tr>
<td>Total</td>
<td>348</td>
<td>3.0426</td>
<td>.87512</td>
<td>.04691</td>
<td>2.9504 - 3.1349</td>
<td>1.40</td>
<td>4.90</td>
</tr>
</tbody>
</table>

ANOVA BY GENDER

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>11.166</td>
<td>1</td>
<td>11.166</td>
<td>15.176</td>
<td>.208</td>
</tr>
<tr>
<td>Within Groups</td>
<td>254.581</td>
<td>346</td>
<td>.736</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>265.747</td>
<td>347</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 3 is not rejected. There is no difference. Based on gender, the result from Table 11.6.3; the researcher found that the highest mean belonged to Male (M=3.26, S.D=0.94), and the lowest mean to female (M=2.89, S.D=0.79), from this male flight attendants experience higher stress than female ones during flight.

Table 11.6.4. One way ANOVA test hypothesis 4.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE</td>
<td>168</td>
<td>3.0133</td>
<td>.94975</td>
<td>.07327</td>
<td>2.8686 - 3.1580</td>
<td>1.40</td>
<td>4.90</td>
</tr>
<tr>
<td>MARRIED</td>
<td>140</td>
<td>3.1580</td>
<td>.83053</td>
<td>.07019</td>
<td>3.0192 - 3.2967</td>
<td>1.40</td>
<td>4.90</td>
</tr>
<tr>
<td>DIVORCED</td>
<td>12</td>
<td>3.3667</td>
<td>.61693</td>
<td>.17809</td>
<td>2.9747 - 3.7586</td>
<td>2.90</td>
<td>4.20</td>
</tr>
<tr>
<td>Total</td>
<td>320</td>
<td>3.0898</td>
<td>.89102</td>
<td>.04981</td>
<td>2.9918 - 3.1878</td>
<td>1.40</td>
<td>4.90</td>
</tr>
</tbody>
</table>

ANOVA BY MARITAL STATUS

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.554</td>
<td>2</td>
<td>1.277</td>
<td>1.614</td>
<td>.201</td>
</tr>
<tr>
<td>Within Groups</td>
<td>250.704</td>
<td>317</td>
<td>.791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>253.258</td>
<td>319</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 4 is not rejected, there is no difference. Based on Marital status, the result from Table 4.6; the researcher found that the highest mean belonged to the divorced category (M=3.36. S.D=0.61), and the lowest mean to the single category (M=3.10. S.D=0.94).

Table 11.6.5. One way ANOVA test hypothesis 5.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Years</td>
<td>32</td>
<td>3.2757</td>
<td>.77934</td>
<td>.13777</td>
<td>2.9947</td>
<td>3.5567</td>
<td>2.20</td>
</tr>
<tr>
<td>3-4 Years</td>
<td>76</td>
<td>2.9776</td>
<td>.83590</td>
<td>.09588</td>
<td>2.7866</td>
<td>3.1686</td>
<td>1.80</td>
</tr>
<tr>
<td>5 years or more</td>
<td>252</td>
<td>3.0100</td>
<td>.88487</td>
<td>.05574</td>
<td>2.9002</td>
<td>3.1198</td>
<td>1.40</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>3.0268</td>
<td>.86723</td>
<td>.04571</td>
<td>2.9369</td>
<td>3.1167</td>
<td>1.40</td>
</tr>
</tbody>
</table>

ANOVA BY EXPERIENCE

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.237</td>
<td>2</td>
<td>1.119</td>
<td>1.492</td>
<td>.226</td>
</tr>
<tr>
<td>Within Groups</td>
<td>267.765</td>
<td>357</td>
<td>.750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>270.002</td>
<td>359</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 5 is not rejected, there is no significant difference. Based on Experience, the result from Table 11.6.5; the researcher found that the highest mean belonged to the category 2 years (M=3.27. S.D=0.77) and the lowest mean to the category 3-4 years (M=2.97. S.D=0.83).

Table 11.6.6. One way ANOVA test hypothesis 6.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESS THAN 1000$</td>
<td>208</td>
<td>3.0433</td>
<td>.81768</td>
<td>.05670</td>
<td>2.9315</td>
<td>3.1551</td>
<td>1.50</td>
</tr>
<tr>
<td>1000-1500$</td>
<td>104</td>
<td>2.6615</td>
<td>.81065</td>
<td>.07949</td>
<td>2.5039</td>
<td>2.8192</td>
<td>1.40</td>
</tr>
<tr>
<td>$1500+</td>
<td>12</td>
<td>3.2083</td>
<td>.66890</td>
<td>.19309</td>
<td>2.7833</td>
<td>3.6333</td>
<td>2.63</td>
</tr>
<tr>
<td>I DON'T WANT TO TELL</td>
<td>20</td>
<td>3.4767</td>
<td>.53788</td>
<td>.12027</td>
<td>3.2249</td>
<td>3.7284</td>
<td>2.80</td>
</tr>
<tr>
<td>Total</td>
<td>344</td>
<td>2.9588</td>
<td>.82471</td>
<td>.04447</td>
<td>2.8714</td>
<td>3.0463</td>
<td>1.40</td>
</tr>
</tbody>
</table>
ANOVA BY INCOME

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>16.785</td>
<td>3</td>
<td>5.595</td>
<td>8.787</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>216.506</td>
<td>340</td>
<td>.637</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>233.292</td>
<td>343</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 6 is rejected. There is a difference. Based on Income; Based on the result from Table 11.6.7; the researcher found that the highest mean belonged to the category ‘I don’t want to tell you’ (M=3.47. S.D=0.53), and the lowest mean to the category ‘$1,000-$1,500’ (M=2.66. S.D=0.81). From this, flight attendants who they don’t feel comfortable sharing their income experience highest level of stress and flight attendants who earn $1,000-$1,500 experience least levels of stress during flight.

11.7. Descriptive analysis of interview

According to interview answers from both HR manager of nominated Iranian airlines; both airlines are having stress management programs and they provide support to those flight attendants who they feel stressed during flights. But when we refer to questioner’s results, 89.0% (292) respondents believe that their organization does not have any stress management plan for them. Therefore, Miscommunication and failure of airlines in implementation of their stress management program are two perceived assumptions after comparison of the result of questionnaires with interviews.

12. Recommendations

The current study here came to an end with the following suggestions and recommendations which would prepare the ground for more researches related to aviation industry and the related issues.

12.1. Recommendations for human resources managers

The selection and recruitment of the air crew and specially the flight attendants is both long productive tend and the most costly process for any HR Department; therefore, it requires very high expertise on the side of the HR team to plan and prepare specific job related criteria and training for selecting, recruiting and training of the air crew and flight attendants. For such a pain staking job, the managers need to know what really goes on out, in and during flight while their crew is serving their customers. This means if the managers know what factors would affect their personnel attitudes, feelings and health they would be more capable in handling job related issues such as high turnover rate, absenteeism, and unreasonable sick leave due to the stress provoking nature of being a flight attendants.

12.2. Recommendations for IT managers

These days technology has an inevitable role in reducing the cost and speeding up the service delivery with minimum possible errors as well as efficiency of the company service delivery. This means such a strong technological innovation used in aviation industry can also expand the domain of its service as reducing the stress provoking conflicts between the air crew in general and flight attendants in particular. For instance, the IT managers and IT team can use the finding of the current research for providing an e-system of food and in-flight service booking while customers are e-reserving their e-tickets for their flights.
12.3. Recommendations for marketing managers

This research can help marketing managers in airline industry to reduce the stress of flight attendants. This means marketers and specially marketing managers can demonstrate and reflect more on their customer’s behavioral norms, cultural understandings and the target culture of their environment. This requires more careful analysis of the four Ps of marketing (People, Place, Price and Promotion). Therefore, marketing managers with more knowledge and awareness on the kind of stress flight attendants face as well as the factors which lead to such kind of stress would present a kind of environmental analysis in both external and internal contexts of their business model for controlling the stress imposed upon their aircrew. This can be more effective if the marketing managers give their interpretation of the target market analysis to HR experts to create a kind of curriculum for their personnel training and help their colleagues on air to have better understanding of their target customers and attitude as well as their understanding of the hard-working devotee team of aircrew who are dedicated to serve their respected clients.

13. Conclusion

The findings from both quantitative and qualitative data were found in the same direction. That most frequently encountered stress was from Interpersonal, organization factors. Based on the data obtained by the current study, having high perception toward stress, family pressure over working hours, peers, conflict are four most Interpersonal causes of stress within Iranian flight attendants. Furthermore, Supervision and excessive working hours (40-50 hrs per week) as it exceeds standard flight time in other International airlines which is 75 to 100 hours a month (Bureau of Labor Statistics, U.S. Department of Labor, 2016) and low salary payment (less than $1,000) which is ways less than average salary for flight attendants who work in other countries as the median annual flight attendant salary is $69,231. As of April, 2016 with a range usually between $55,564-$85,848, however this can vary widely depending on a variety of factors (salary.com, 2016). A 2015 survey also indicated the annual average income for a flight attendant was $46,600 (Statistics NZ, 2015). These are all major cause of stress within Iranian flight attendants.

Furthermore, the most common stress symptoms within Iranian flight attendants are fatigue, backache and headache which they are all physiological symptoms. There are other psychological symptoms like anger, worrying, loneliness, powerlessness, frustration, depression, crying and yelling. According to Interview with HR manager of one of Iranian airlines, anger in male FAs and crying in female FAs are most common psychological symptoms during flight.

In addition, the research has found out that the most popular copying methods that Iranian flight attendants use to reduce their in-flight stress are emotion-focused. Drinking coffee/coke, talking with someone they know, using relaxation techniques are top three copying methods. Moreover, eating, taking aspirin, exercise, using medications, crying and doing nothing are the rest copying methods that Iranian FAs use to deal with their in-flight stress.

Moreover, Iranian FA has been evaluated their airlines as being occasionally supportive, and they claimed that there are times that they feel stress during flight which they believe it is mostly coming from cabin supervision. They also believe that workload has been increased within past three years and they work approximately 40 to 50 hrs per week. Most of our respondents have been taken 6 to 10 leave days from work within last year due to work stress. In overall, most of respondents believe that there is no stress management plan in their organization meanwhile they are satisfied working in their organization.
Finally, results from Interview and results from questioners revealed that HR managers of both airlines admit that their airlines have serious stress management programs but 89.0% (292) of flight attendants believe their airline doesn’t have any stress management program for them. Therefore, a strong difference between managers and flight attendants ideas is obvious from results that can be either an outcome of airlines miscommunication with their flight crew or their failure in implementation of stress management programs.

References


Websites

http://essaymonster.net/business/117185-market-research-into-iran-air-management.html
http://www.treasury.gov/resource-center/sanctions/Programs/pages/iran.aspx
Service recovery and influential factors on customer behavioral intentions after flight delay

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\textsuperscript{a}STITEK Bina Taruna, Indonesia, \textsuperscript{b}Karlstad University, Sweden

Abstract

**Purpose** – The objective of this study is to understand how customer satisfaction of service recovery after a flight delay is shaped. The study used Lion Air as case study. Justice theory dimensions are used to analyze perceptions. The study seeks to understand further how customer satisfaction along with customer tolerance of service failure affects customer behavioral intentions to repurchase and recommend airline services.

**Design/methodology/approach** – Self-reported questionnaires were distributed online to more than 600 people and obtained 383 valid responses. Regression analysis was used to study the relationship between service recovery items and customer satisfaction. Hierarchical moderated regression analysis was used to determine the moderating role of customer tolerance of service failure between the relationship of customer satisfaction and customer behavioral intentions.

**Findings** – During service recovery, customers were satisfied when distributive justice is fulfilled. Customers expected an adequate outcome distributed in a timely manner. Subsequently, satisfied customers were confirmed to have positive behavioral intention, that is, they would repurchase and recommend the service. On the contrary, customer tolerance of service failure was tested and was found to not moderate the relationship between customer satisfaction and customer behavioral intentions. Nonetheless, the main effect of the moderator variable is worth considering. Customers with a high level of tolerance toward the service failure with an average satisfaction level of service recovery were discovered to have slightly higher intention to repurchase the service. These respondents were compared to those with a high satisfaction level of service recovery, but with a low level of tolerance to flight delay as service failure.

**Originality/value** – In this study, we integrated service recovery items through justice theory dimensions, satisfaction, and customer behavioral intention with customer tolerance as moderator variable. The findings suggest that customer tolerance of service failure does not significantly affect customer behavioral intention as much as customer satisfaction. Thus, airline service should improve the quality of service recovery during service failure.

**Keywords:** service recovery, flight delay, justice theory, customer satisfaction, customer behavioral intentions, customer tolerance

1. Introduction

Service failure in an airline such as flight delay is inevitable. This is mainly due to various factors which can contribute to flight delay of an airline (Wu, 2005). For this reason, it is important for an airline to implement remedial measures or service recovery to redress delayed passengers as customers. This is especially so for a low-cost carrier airline generally known for its high flight frequency.
Previous studies regarding service recovery have used the concept justice theory from the field of psychology (Wen & Chi, 2013). According to Blodgett, et al. (1997), using justice theory dimensions will assist a service organization to construct effective and comprehensive service recovery strategies which eventually affect customer satisfaction. Subsequently, once customers are satisfied, customers are willing to continue their relationship with the company to repurchase and to recommend the company to others (Grönroos, 2000). However, as argued by Hart C.W and Johnson M.D (1999) (cited in Grönroos 2000), there is a zone of indifference which makes the satisfied customers do not have any intention to repurchase. Grönroos (2000) also add that each customer may have a different tolerance toward a service. Hence, it is also important to understand how customers’ tolerance toward service failure can affect their behavior intentions.

Gebhardt, et al. (2006) also supported that, in the service industry, customers are considered as raison d’être. Therefore, it is necessary for the service provider to understand the need of customers and other factors which will satisfy them, especially during irregular condition, such as flight delay. By understanding factors such as customer satisfaction through justice theory and customers’ tolerance of service failure, it is expected the airline as the service provider can maintain customer loyalty in the long term (Wen and Chi 2013).

2. Theoretical framework

2.1. Service recovery

In the service delivery process, employees make mistakes, customers could cause problems that can affect other customers, system malfunction, etc (Grönroos, 2000). Therefore, it is necessary for a service company to support the system with significant efforts to redress the situation, that is a service recovery, to rectify situations in a form of apology, compensation, etc. However, Michel, et al. (2009) discovered that service recovery is highly possible to fail due to the gaps among employees, customers, and the internal process. Therefore, they suggested that in order to develop an effective service recovery, the five following points may help to close the gap between customer and company or the service provider: 1) synergize of a —service logic‖, which to equip the company with service maps (to identify plausible failure points) and cross-functional teams (to solve problems synergistically); 2) synergize with strategy-driven recovery, to develop certain strategy which suitable to the circumstances (procedural and/or customized) according to the business nature; 3) synergize with seamless data intelligence, to facilitate the customers with media, which can be tooled to conduct two-ways communication; 4) synergize with rewards management, to unify the employees so they can achieve the same vision of the company and display professional behavior (Michel, et al., 2009); 5) synergize with the empowerment of T-shaped employees, an individual who has a strong functions expertise, but also can think and perform across various functions (Michel, et al., 2009).

2.2. Justice theory

a. Distributive or outcome justice

Distributive or outcome justice refers to the perception of customers of the outcome of a service recovery whether it is deserved, necessary or fair (Tax & Brown, 1998). The outcome of service recovery is according to what customers receive after the failure from the company (Ha & Jang, 2009). For a service failure, the outcome of service recovery may result in a coupon, voucher, and so forth. According to Bitner, et al. (1990), the customers’ expectation of the outcome of service recovery varies between different individuals depending on the severity level of the service failure. Certain customers may expect a fair solution, while others may expect some extra compensations.
Nonetheless, when the customers perceive an injustice from the company, Greenberg (1996) (cited in Hocutt, et al., 2006) stated that customers are more likely to display negative emotions which can affect the business, such as spreading negative word-of-mouth and even changing to other brands or competitors.

b. Procedural justice

Thibaut and Walker (1975) (cited in Blodgett, et al., 1997) explained that procedural justice refers to the customers perception toward procedures, policies, and criteria used by decision makers in arranging the outcome of the negotiation of service recovery. Blodgett, et al. (1997) also add that the dimensions of procedural justice are revolving around promptness, responsiveness, and convenience of the process in handling customers' complaints. Several studies display findings, which emphasize that time length in solving customers' problems may contribute to customer dissatisfaction. Therefore, in procedural justice, the procedures framework has to be precise and straightforward. In addition, the policies and procedures are expected to be consistent, neutral, and represent all parties’ interests and needs, and are based on ethical standard and strong law enforcement (Leventhal, et al., 1980) (cited in Blodgett, et al., 1997).

c. Interactional justice

Interactional justice refers to the attitude and manner the company's staffs display during handling and solving customers' complaints such as courtesy and honesty (Bies and Moag, 1986) (cited in Blodgett, et al., 1997). Thus, interactional justice emphasizes the interaction between company staff and customers during a service encounter. As explained by Sparks & McColl-Kennedy (2001), customers' perception will be induced by how they feel and think they are handled and treated. Goodwin and Ross (1992) found that apology and another form of interactional aspects may restore the psychological equity in customer. This statement is also supported by Boshoff (1997). An immediate apology can drastically impact customer satisfaction.

Based on the literature review above, it is explained that customer satisfactions heavily depend on how the justice dimensions are being carried out by the service company. Hence, it is necessary to test how justice dimensions are being perceived by the customers in a low-cost airline. The first hypothesis is generated as follows.

H1. Customers' perception of service recovery through justice theory dimensions has significant impact on customer satisfaction.

2.3. Customer satisfaction and customer behavioral intention

As explained by Oliver (1997) (cited in Kabir & Carlsson, 2010), customer satisfaction is considered as a judgement toward a product or service which provides pleasing consumption. While, according to Ostrom and Iacobucci (1995) (cited in Maxham III, 2001), satisfaction is an element which only can be assessed after consumption. This part is rather tricky in service industry because unlike goods, service is consumed at the same time it is produced (Parasuraman, et al., 1985). Hence, it is important for the service provider to enhance the level of service quality to maintain customers. Grönroos (2000) also supported that customers who are —very satisfied—are more likely to trust the company and increase their intention to repurchase and spread the positive word of mouth behavior. Therefore, the second hypothesis is generated.

H2. Customers' satisfaction has significant impact on customers' behavioral intention.
2.4. Customers tolerance of service failure

The concept of Zone of Tolerance (ZOT) was developed by Leonard Berry and his fellow researchers. This concept presumes that the expectations of customers may vary in the term of the level of service items. In certain point, they still can tolerate and accept the service even though something does not match their expectation (cited in Low, et al., 2013). Low, et al., (2013) tried to determine whether customer loyalty can influence customers’ tolerance. However, studies employing customers’ tolerance of service failure impact on behavioral intention are still not common.

H3. Customers’ tolerance of service failure has a strong moderating role between customer satisfaction on service recovery and repurchase intention

H4. Customers’ tolerance of service failure has a strong moderating role between customer satisfaction on service recovery and recommendation intention

Fig 1. Model of Literature Framework

2.5. Flight delay impact on customers’ perception

In a study conducted by Xu (n.d.), a study of flight delay in comparison between Asian and Western travelers were analyzed. In general, Western travelers care about the flight delay more than Asian travelers. It is discovered that cultural values and norms influence the expectation and evaluation of service quality in a service provider. As supported by Naor, et al (2010) (cited in Xu, n.d), the national culture could impact an individual’s behaviors and perceptions. Western travelers have more tendency to express their feeling, such as to complaint. In contrast, Asian travelers who known for its collectivism would less likely to display dissatisfaction.

In addition, difference of travel purposes influence how customers’ perceived flight delay. Leisure travelers who took economy class was proven to be not significantly affected by flight delays compared to business travelers. This is mainly because the low ticket price influence the low service expectation of customers (Xu, n.d).

3. Methodology

3.1. Data collection and sampling

Airline industry are very vulnerable to service failures like flight delays due to its multi-coordination nature of the industry (Wu, 2005). Thus, an airline service provider is an ideal example to study to understand how service recovery is undertaken after a service failure. Lion Air is a major domestic airline in Indonesia with a low-cost profile. The airline, however, unfortunately is known for its low On-Time Performance which only accounted for 70% (Lion Air On-Time, 2015) in 2015 which...
means that as high as 30% of their total flight were delayed. Hence, the passengers of Lion Air are good to analyse regarding their behavioral intentions after a flight delay.

Specifically, the population in this study is passengers of Lion Air who took off from Soekarno-Hatta International Airport. For the sampling strategy, this research is conducted by utilizing *purposive sampling* as one of the type of non-probability sampling. As described in Bryman & Bell (2007), in purposive sampling the researchers makes contact with people who they believe are relevant to the study. An online questionnaire was distributed via social media and targeted individuals who have experienced flight delays within the last 2 years. This method is massively utilized in various business surveys (Kothari, 2004). It is also can be considered as a low cost method when it is applied in a flight delay case. As stated by Kothari (2004), an online questionnaire can be broadly distributed geographically.

This study aimed at a sampling error around +/- 4 percent of population according to the average number of passengers of Lion Air in a year. Hence, the questionnaire were distributed to 654 respondents and received 383 valid responses. Respondents who did not respond are 76 people, while there were 195 invalid responses. Several responses were invalid because the respondents were not suitable for the sample characteristics. For instance, the flight delay occurred more than 3 years ago, the delay occurred was a tarmac delay, etc. The responses were collected within two months range of distribution in spring 2015.

The basic characteristics of respondents were as follows.

- Gender (male = 66%; female = 34%)
- Age (less than 21 years old = 4%; 21-30 years old = 73%; 31-40 years old = 17%; 41-50 years old = 3%; 51-60 years old = 3%)
- Travel frequency with Lion Air (often = 47%; sometimes = 28%; rarely = 25%)

3.2. Questionnaire development

A pilot survey was conducted with a sample of 30 respondents, which exposed respondents' experiences of flight delay when taking Lion Air. As suggested by Johanson & Brooks (2009), for a pilot study, 30 participants from the population is a rational minimum recommendation. Several items of tolerance of service failure in the final questionnaire were extracted from the Pilot Survey. The tolerance factor entails failure tolerance, transparency tolerance, and compensation tolerance.

The items of service recovery and customers' behavioral intention in the questionnaire were based on previous research. The service recovery measurement was partly taken from the pilot survey and partly adapted from Miller, et al., (2000), (Andreassen, 2000). Finally, the customers' behavioral intention measurement was adapted from Maxham III, (2001). The final questionnaire comprises of several sets of statements with five points of Likert Scale (i.e. Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree). The questionnaire can be seen in the Appendix.

3.3. Data analysis

For the classification of service recovery items, the analysis method attempted was a confirmatory factor analysis employing AMOS 21. However, since there are several missing data, a proper confirmatory factor analysis could not be executed and generated a poor Model Fit. Hence, an explanatory factor analysis was chosen. Several service recovery items were deleted due to the low factor loading in Factor Analysis. Multiple Regression Analysis was conducted to measure the relationship between factors of service recovery and customer satisfaction. In addition, a Correlation Analysis was employed to rank the importance of the items in service recovery. Subsequently, a
hierarchical linear regression was employed to analyze the moderating effect of customers’ tolerance of service failure variable between customers satisfaction and customers’ behavioral intention (Field, 2009).

3.4. Validity and reliability

The constructs are considered valid because they were adopted various articles about service recovery. It is also proven through KMO (Kaiser-Meyer-Olkin statistic) value of 0.91 which indicates the amount of sample is enough. While, the internal reliability test was conducted using Cronbach’s Alpha. The reliability was performed for each item and the results show good reliability. As stated by Field (2009), the overall value of Cronbach’s Alpha which greater than 0.8 is considered good.

4. Results and discussion

4.1 Service recovery items on customers satisfaction

An Exploratory Factor Analysis was conducted in classifying service recovery items based on the responses of respondents. The items were divided into three factors, that is an immediate recovery phase, failure handling phase, and post recovery phase as shown in Table 1 below. While the last column shows the justice theory in each factor may encompass. Subsequently, the factors were analyzed by employing Multiple Regression Analysis to measure the relationship between the factors and customer satisfaction as depicted in Equation (1).

<table>
<thead>
<tr>
<th>Factors</th>
<th>Items</th>
<th>Factor Label</th>
<th>Justice Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Staff was transparent in explaining the reason of the delay 2. Staff announced the new departure schedule 3. Staff apologized sincerely to passengers 4. Accuracy of the info of delay duration 5. Staff was present in the departure gate when delay occurred</td>
<td>Immediate Recovery Phase</td>
<td>Interactional and Procedural Justice</td>
</tr>
<tr>
<td>2</td>
<td>1. Staff was capable and in good authority in solving the problem 2. Staff promptly responded to service failure, and complaint, etc 3. Staff handled the service failure and complaint professionally</td>
<td>Failure Handling Phase</td>
<td>Interactional and Procedural Justice</td>
</tr>
<tr>
<td>3</td>
<td>1. I received an adequate outcome 2. The problem/complaint was resolved in a fast manner</td>
<td>Post Recovery Phase</td>
<td>Distributive Justice</td>
</tr>
</tbody>
</table>

The model has R-square= .39 which means that efforts in service recovery through justice theory accounts for 39% of the variance in customer satisfaction. Out of three factors, the most significant factor or phase lies in Post Recovery Phase where distributive justice is assessed by the customers as shown in Equation 1. It is followed by Failure Handling Phase where procedural and interactional justice are assessed by customers. While Immediate Recovery Phase does not significantly contribute to customer satisfaction.

\[ Y = 0.05X1 + 0.26X2 + 0.35X3 + 1.936 \]  \( (1) \)

where:

- \( Y \) = Customer satisfaction on service recovery
- \( X1 \) = Variable — Immediate recovery phase
- \( X2 \) = Variable — Failure handling phase
- \( X3 \) = Variable — Post recovery phase
In other words, judging by the justice theory, the major contributor to customer satisfaction is distributive justice, followed by procedural justice and interactional justice. In addition, a correlation analysis for each item was also conducted with R square = .41. The order of top five of the importance of recovery efforts during a flight delay which contribute to customer satisfaction is listed below.

1. Problem/complaint or service failure is resolved in a timely manner.
2. Adequate outcome (compensations, answers, etc).
3. Prompt response from the staffs in handling the problem/complaint/question.
4. Capable staffs who understand in handling and solving the problem/complaint.
5. Professional staffs in handling the problem/complaint.

Thus, it is proven through hypothesis 1 (H1) that perceived service recovery plays a vital role in customer satisfaction. Distributive justice in the post recovery phase is the major contributor to customer satisfaction. Passengers are more satisfied when the outcome of the service recovery during a flight delay is adequate and given in a prompt manner. This finding implies that customers in an airline industry are more sensitive to tangible efforts from the company compared to the empathy dimension in service quality. This finding mirrors with past research of Nikbin, et al. (2010), Adelaine & Tan (2014); (Kwon & Jang, 2012) and so forth. While, in immediate recovery phase, the main focus of justice which plays a crucial role is interactional justice. However, indicators like —Staffs apologize and —Staffs transparency are considered low in the term of their contribution to customer satisfaction. This finding contradicts the theory from Boschoff (1997) which stated that a form of apology could impact customer satisfaction. Nonetheless, interactional justice is fundamental justice, which can give assurance to the delayed passengers. As explained in Fitzsimmons & Fitzsimmons (2008), assurance is the dimension of service quality which can be employed as the assessment of a customer in perceiving service delivered by a company which eventually lead to one of the indicators that influence customer satisfaction.

In the second phase (i.e. failure handling process), procedural and interactional justice are involved. People apparently are more likely to concern about the responsiveness dimension, that is, process in handling their complaints, the timeliness of staff in responding to service failure, capability of staffs in handling the problem (procedural justice); and professionalism of staff in treating passengers during flight delay (interactional justice). Yet, the existing condition says otherwise. It was discovered that 75% of total respondents were dissatisfied with service recovery of Lion Air.

4.2 Customers' tolerance of service failure as moderator variable

In service industry, customers are considered as the raison d'être (Gebhardt, et al., 2006). It implies that a service provider must make the extra effort in attracting and maintaining customers. As supported by Grönroos (2000) that it takes customers who are satisfied that will increase their intention to repurchase and spread the positive word of mouth behavior. However, according to the pilot survey, the author believes that external factor may impact the relationship between customer satisfaction and customer behavioral intentions, that is customers tolerance of service failure as the moderator variable as illustrated in Figure 2. The tolerance variable is consists of failure tolerance (Tol_F), tolerance because info transparency (Tol_T) and tolerance because of compensation (Tol_C).
The analysis result shows the relationship between satisfaction and intention with or without tolerance as the moderator variable based on a Hierarchical Multiple Regression. Through H2, it is discovered that customer satisfaction (CS) has significant impact on customer behavioral intention to repurchase (R square = .43) and to recommend (R square = .29). However, in interaction number 5 and 6 as in Table 2 below, it is discovered that there is no R-square change which means that there is no significant moderation of the variable —tolerance— which can affect the relationship between the predictor (i.e. customer satisfaction) and the outcome (i.e. customers behavioral intention). In other words, the relationship between customer satisfaction of service recovery and behavioral intentions was not significantly moderated by customers tolerance of service failure. Hence, H3 and H4 is rejected.

Table 2. Result of Hierarchical Multiple Regression Between Customer satisfaction, customer tolerance, and customer behavioral intention.

<table>
<thead>
<tr>
<th>No</th>
<th>Predictor</th>
<th>Moderator Condition</th>
<th>Outcome</th>
<th>Sig. (ANOVA)</th>
<th>R²</th>
<th>R² Change</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>without Tol_F interaction</td>
<td>Repurchase</td>
<td>.00</td>
<td>.43</td>
<td>.008</td>
<td>Complete moderation is not occurred, yet the main effects are significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Tol_F interaction</td>
<td></td>
<td></td>
<td>.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>CS</td>
<td>without Tol_T interaction</td>
<td></td>
<td>.00</td>
<td>.43</td>
<td>.001</td>
<td>Complete moderation is not occurred, yet the main effects are significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Tol_T interaction</td>
<td></td>
<td>.00</td>
<td>.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>without Tol_C interaction</td>
<td></td>
<td>.00</td>
<td>.43</td>
<td>.001</td>
<td>Complete moderation is not occurred, yet the main effects are significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Tol_C interaction</td>
<td></td>
<td>.00</td>
<td>.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>CS</td>
<td>without Tol_F interaction</td>
<td>Recommendation</td>
<td>.00</td>
<td>.29</td>
<td>.01</td>
<td>Complete moderation is not occurred, yet the main effects are significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Tol_F interaction</td>
<td></td>
<td></td>
<td>.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>without Tol_T interaction</td>
<td></td>
<td>.00</td>
<td>.53</td>
<td>0</td>
<td>R square change does not indicate significant moderation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Tol_T interaction</td>
<td></td>
<td>.00</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>without Tol_C interaction</td>
<td></td>
<td>.00</td>
<td>.53</td>
<td>0</td>
<td>R square change does not indicate significant moderation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Tol_C interaction</td>
<td></td>
<td>.00</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Nevertheless, in interaction 1 to 4, a slight change of R-square is apparent. Hence, the main effect of moderator variable can be observed from the interaction graphic based on the output from PROCESS in SPSS. As displayed in Figure 3, as customer satisfaction and level of tolerance of service failure increased, the repurchase intention also increased. However, it is interesting to note that dissatisfied passengers have a low intention to repurchase, although some of the passengers have a high tolerance of flight delay as a common service failure in the airline industry. This case is similar in Figure 4 and Figure 5. Nonetheless, it can be concluded that there is only a slight increase of repurchase intention between passengers who have low satisfaction of service recovery and high satisfaction of service recovery.

Fig 3. Main Effect of Tolerance of Service Failure Between Customer Satisfaction and Repurchase Intention.

Fig 4. Main Effect of Tolerance of Service Failure Because of Info Transparency between Customer Satisfaction and Repurchase Intention.

Fig 5. Main Effect of Tolerance of Service Failure Because of Compensation Between Customer Satisfaction and Repurchase Intention.
While in Figure 6 especially for passengers who have low satisfaction, it is also worth mentioning that there is almost no difference of recommendation intention between passengers who have low tolerance of service failure and passengers who have high tolerance of service failure.

In other words, customers are more likely to repurchase and more likely to tolerate flight delay as long as there are info transparency and adequate compensation. While, for recommendation intention, it is discovered that passengers who have low level of satisfaction have less tendency to recommend the airline, even though the individuals have an average and high level of tolerance of service failure. In sum, customers’ tolerance of service failure is not enough to influence delayed passengers to increase their intention to repurchase and to recommend. As supported by Xu (n.d), Asian travelers are not significantly affected by flight delay. However, it is necessary for the airline both to develop preventive measures in minimizing delay and improvements in the service recovery efforts toward passengers to maintain customers.

5. Conclusions

According to customers perspectives, the most influential justice dimension which contribute to customers satisfaction is the distributive justice in post service recovery phase. Appropriate compensation, fast outcome and response, capable and professional staffs are highly correlated with customer satisfaction of service recovery during a flight delay. However, these aspects are still not fully met in the practice of service recovery of the airline. Also, it is proven that customers tolerance of service failure does not significantly moderate the relationship between customer satisfaction and customer behavioral intention. On the contrary, customers satisfaction is proven to significantly impact customers intention to repurchase and to recommend the airline service. Therefore, in order to attract and maintain customers, the airline must consider in improving the service recovery in their flight delay management.

6. Managerial implications

In order to maintain customers after a service failure occurred, it is necessary for the service provider to provide an effective service recovery effort to customers. Hence, it is important for the airline to establish a rigid internal management based on the top five needs of passengers during a flight delay as follows.

Problem/complaint or service failure is resolved in a timely manner. To achieve this, the airline management must develop a comprehensive service map which can be used as preventive measures. Besides, a synergized cross-functional team must be developed and empowered as suggested by Michel et al. (2009). A service map should illustrate the service experienced by customers orderly.
through time, structures, and process to identify possible failure points. While, a cross-functional teams are needed to engage in solving the problem synergistically. To illustrate this, the management may trace the service and management from the time a route is granted by Ministry of Transportation as the regulator to the moment passengers are waiting in the departure gate. By tracing these steps, it is expected the airline can spot which activities that may cause a flight delay occurred (i.e. mechanical, management, or operational delay, etc) and what is the preventive measures.

1. **Adequate outcome (compensations, answers, etc).** In order to provide this, the management has to develop a procedural strategy in the service recovery based on regulator’s legislations. Also, to develop a customized strategy in certain cases of the service encounter. For instance, the management must compensate the passengers who get delayed for three hours according to the regulations from the regulator.

2. **Prompt response from staff and capable staffs in handling and solving the problem/complaint/question.** Michel et al (2009) suggested that a service company has to train and to educate staffs in becoming T-shaped employees, that is an individual who has a strong functions expertise, but also can think and perform through various functions. According to Lisliyanto (2015), in common practice, decisions involving a great deal amount of money must be firstly granted from top management, such as General Management in Head Office, which ultimately causing the airline not be able to make a decision regarding compensations in a timely manner.

3. **Professional staff in handling the problem/complaint.** A fair treatment for employees in forms such as appreciation, complimentary letters as the cost-effective approach, even financial reward to encourage employees to display professional behaviour toward passengers (e.g. polite, friendly, etc) under certain circumstances (Michel et al, 2009).

In addition, it is advised for the airline to regularly conduct customers’ survey (for instance, every quarter of a year) and encourage passengers to give feedbacks for further improvements. In a customer survey, the airline could ask in a form of questionnaire with Likert Scale or experimental/case study to thoroughly understand what passengers need in a service recovery, especially pertain to compensations. Moreover, it is necessary for the company to facilitate the customers with media, which can be tooled to conduct two-ways communication. On-spot complaint or via telephone or email or company’s website are a good start to improving the service. As supported by Michel et al. (2009), the company must view feedbacks and complaints as a chance for improvement rather than a business failure.

7. **Limitation and further research**

This study has elaborated customers’ perception of service recovery and its impact on customer satisfaction and their behavioral intention. However, the sample of this study only collected from respondents who have experienced the flight delay quite some time. Hence, poor recall memories of the respondents may affect the result.

Several findings in this study are important to be considered in further research. This research analyzes the passengers’ perception of service recovery through justice theory perspective on customer satisfaction. It is suggested that other factors which may contribute to customer satisfaction could also be measured, such as severity of service failure (i.e flight delay duration) and types of outcome (i.e. compensation). Factors which may influence customers’ behavioral intentions could also be assessed, that is customers’ trust and customers’ tolerance of service failure. Furthermore, other factors such as company brand image (especially for low-cost carrier company) and the relationship between customer and company could also be investigated. In addition, this research focuses on customers’ tolerance of flight delay as a service failure. Finally, it is suggested to explore...
further on factors which could affect customers’ tolerance of failure in the service recovery, such as passengers’ education background, travel purpose, occupation, etc.

In a service failure, it is important to observe customers’ behavior after they become dissatisfied with the provided service recovery. Intentions such as to complain to the staff, to spread negative word of mouth to others, or just to switch to other brand is interesting to observe further. From the standpoint of the method of data collection, it is suggested to employ other methods, such as Critical Incident Technique (CIT). Lastly, this research focuses on service recovery after a flight delay is announced. Therefore, it may be worth to investigate factors which may affect flight delay or airline disruption, in the term of technical and operational.

8. Acknowledgement

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References

(JT*) Lion Air On-Time Performance Rating, 2015. [Online]
Available at: <http://www.flightstats.com/go/FlightRating/flightRatingByCarrier.do?airline=JT*&x=0&y=0>
[Accessed 08 March 2015].

Muengsri, A. (2012 ๑๐-December). Brand Strategy by use AIDA Model in Online world. From Blogpunya: http://blogpunya.com/body/%E6%8B%B2%E6%B8%A3%E0%BF%88%95%E6%8B%A5%E6%8B%B2%E0%BF%88%94%E0%BF%8D%E6%8B%A8%E0%BF%88%99%E6%8B%A5%E6%8B%89%E6%8B%89%E6%8B%9C/onlinemarketing-strategy/%E6%8B%A5%E6%8B%A2%E0%BF%88%97%E6%8B%98%E0%BF%8C%E6%8B%AA%E6%8B%B8

Appendix
Official Questionnaire

**I. Perceived Justice Theory Dimensions of Lion Air (Low severity of delay)**
1. The staff was present and ready in the waiting room or departure gate when the delay occurred
2. The staff gave clear explanation and transparent about the reason of the delay
3. The staff gave sincere apology about the delay
4. The staff announced new departure time clearly
5. The actual delay duration is precisely the same as the estimated delay duration

**II. Perceived Justice Theory Dimensions of Lion Air (Low severity of delay)**
1. The staff handled questions and complaints with appropriate manner and professional
2. The staff was capable in answering and handling questions and complaints (compensation)
3. The staff was responsive in handling complaints and compensation
4. The procedure in claiming the compensation was complicated and confusing
5. I got a reasonable compensation from the airline that met my needs
6. My complaint (compensation, etc) was resolved and given as quickly as it should have been
7. I was satisfied with the way the airline handling my complaints and the outcome

**III. Behavioral Intentions**
1. After the delay occurred, I still choose to fly with this airline
2. Even after the delay, I recommended this airline to my friends and relatives

**IV. Tolerance of Service Failure**
1. I understand when a flight is announced as delay because sometimes failures do happen
2. I do not mind waiting as long as there is transparency about the delay reason from airline.
3. I do not mind waiting as long as my rights as passenger are fulfilled (compensation, further information)
Customer quality perceptions of sustainable services – findings from three service contexts

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Abstract

The paper investigates customer perceived quality of services designed to deliver specific value regarding sustainable development. These services are called —sustainable services. The purpose of our research is to untangle the sustainability-related features of service quality. Following the logic of applied theory building, the paper first develops a conceptual base from extant literature. Second, an empirical research design conducive to deriving insights into sustainable services from customer perspective was created. Finally, implications are presented for applied service design. Based on existing service quality conceptualizations and psychological theories explaining pro-environmental behavior, we developed a conceptual model of customer perceived sustainable quality in sustainable service contexts. The model identifies three dimensions of sustainable services quality, namely, cognitive, emotional, and moral dimensions. Operationalization and corroboration involve data triangulation of qualitative interviews and quantitative surveys. We conducted a multiple case study to explore potential variances in customer quality perception across different service contexts. Results suggest that moral norms lie at the core of customer perceived quality of sustainable services. Further findings indicate that distinct contextual factors drive the differences in customer quality perceptions. These factors include market lifecycles, phases in the customer lifecycle, and sustainable design of the service offering itself. Based on our findings, we develop a set of managerial implications for innovation and design of sustainable services.

Keywords: sustainable services, customer perceived value, service quality, pro-environmental behavior

* Corresponding author

1. Introduction

Sustainability is one of the key topics in marketing today and, most likely, in the near future. Whereas most of the current research focuses on product sustainability, the development, design and successful sale of sustainable services has received less attention by scholars (e.g., Tukker et al., 2006; Fraunhofer Institute, 2012). Still, due to the potential of sustainable services to substitute products, it has been argued that increased use of sustainable services, rather than products, is crucial for directing developed societies towards a more sustainable path (Bartolomeo et al., 2003). Marketing sustainable services is distinct from products because they require active customer participation (Zeithaml & Parasuraman, 1990). This in turn, implies customers’ willingness to change their current behavior and to adopt new pro-environmental behaviors in the co-creation process of sustainable services. It can hence be argued that compared with sustainable products, selling sustainable services is more difficult. Ginsberg and Bloom (2004) emphasize that for sustainable services to be successful, the value they bring to customers should be comparable to the value of non-sustainable services. In a similar vein, the need for quality of sustainable services has been stressed (Enquist et al., 2007). Still,
despite a growing number of contributions explaining pro-environmental customer behavior in the psychological literature (see for an overview Steg & Vlek 2009), studies investigating customer perceptions of sustainable service offerings and customer motivation to engage in co-creation behavior are still scarce. From a management perspective the questions remain: What are the relevant dimensions determining customer perceived quality of sustainable services? And accordingly, how should sustainable services be managed from a customer perspective? This paper addresses these questions and proposes firstly a conceptual model for customer perceived quality of sustainable services. The model focuses on sustainable services in the B-to-C sector and combines conceptualizations of service quality with psychological theories explaining pro-environmental behavior (e.g., Steg & Vlek, 2009). Secondly, the paper investigates customer perceived quality of sustainable services in three service contexts, using a mixed methods approach. Finally, the paper discusses implications of the results on customer-oriented management of sustainable services.

2. Customer perceived quality of sustainable services

By combining the characteristics of services, quality and sustainability, we propose an initial working definition for the perceived quality of sustainable services: the customers’ perceived judgment about the excellence of the experience relating to the usage process of the sustainable service (Lemke, Clark & Wilson 2011).

Based on a perspective synthesizing conceptualizations of service quality with established theories explaining pro-environmental behavior, we distinguish three related quality dimensions for sustainable service quality: cognitive, emotional and normative. In line with the service management literature, we suggest that customers’ perceptions will firstly be driven by a cognitive evaluation of functional aspects of service delivery (Edvardsson, 2005). The cognitive dimension corresponds with the psychological theory of planned behavior (TPB, Ajzen, 1991), which has been adopted in studies on pro-environmental consumer behavior (Bamberg et al., 2003). It is based on the assumption that individuals make rational decisions and choose alternatives with highest benefits against lowest costs. The TPB has proven to be successful in predicting pro-environmental behavior by including attitudes and behavior control in different settings. While attitudes reflect benefits resulting from an individual evaluation of the targeted behavior, perceived behavior control refers to the respective costs. The cognitive dimension comprises all customer responses to quality factors that are judged within a continuum ranging from —good to bad—.

Secondly, and in line with recent conceptualizations of the wider concept of experience quality (see for instance Palmer, 2010), we propose that emotions are likely to play a crucial role in the customer’s quality perception and hence propose an emotional dimension. This is in line with more recent approaches in environmental psychology, which focus on the role of affect motivating pro-environmental behavior (e.g., Gatersleben, 2007). These studies reveal that individuals perform a specific behavior because it makes them feel good. In contrast to the cognitive dimension, emotional customer responses are judged along the dichotomous poles of —pleasant versus unpleasant—.

Whereas a range of studies in the service literature have already looked at the relative influence of cognition versus emotion in customer quality and satisfaction (see for instance Homburg et al., 2006), the third, moral dimension suggested to influence customer quality perceptions is specific to sustainable services. Various studies in the psychological context focus on the role of normative or moral concerns influencing pro-environmental behavior (e.g., Steg & Vlek, 2009; Stern, 2000). These studies reveal that people are more likely to engage in pro-environmental behavior the more they subscribe to values related to the environment (e.g., prosocial, altruistic values, or values related to the biosphere) that will form their personal norm (Stern, 2000). From a sustainable service adoption
perspective, these studies substantiate the view that co-creation behavior, which customers perceive to be in line with their personal norms, will lead to a positive service evaluation. This said, the normative dimension encompasses any quality factors, which are assessed by customers as either —rightl or —wrongl. Finally, and in line with the literature confirming that quality is a strong predictor of behavioral intentions (e.g. Liljander & Strandvik, 1995), our model suggests that a positive perception of the three proposed quality dimensions affects customers’ willingness to engage in co-creating sustainable service processes (see Figure 1).

![Fig. 1. A conceptual model of sustainable service quality.](image)

3. Methodology

In line with the 5-phase model of theory building in applied disciplines (Swanson & Chermack, 2013), the purpose of the empirical study was to reflect, refine and to contextualize our conceptual model in three different sustainable service settings. A multiple case study design, using a mixed methods data collection method was adopted (Yin, 2014). The three cases included a car sharing company, an electricity provider offering solar panels for rent or sales with a decentralized electricity production infrastructure, and a private recycling firm which operates waste disposal and recycling outlets. Through the multiple case study approach, we adhere to the notion in the literature that perceived quality is a context-specific construct (see for instance Palmer, 2010), which is subject to the rater perspective (see for instance Edvardsson et al., 2005). Rossiter (2002, p. 309) follows that —one cannot conceive service quality in the abstract, it has to have a focal object…l. —Furthermore, the construct has to specify a rater identity…l (ibd.). Our own empirical study details car sharing, electricity provision, and recycling as the three focal objects to which the quality of sustainable services applies and defines existing and potential target customers as the relevant raters. All case studies followed identical procedures: firstly, an exploratory research, using in-depth face-to-face interviews with customers was conducted. The empirical research question for the qualitative part was to explore how sustainable service quality is perceived by customers. Secondly, a survey approach was used in order to identify the impact of the perceived quality factors of sustainable services on co-creation intention.
3.1. Data collection, analysis and findings of the qualitative interviews

The exploratory research relied on in-depth interviews, following a purposive, non-probability sampling approach. In total, 41 face-to-face interviews with customers (12 car sharing; 10 electricity; 19 recycling) were conducted. They lasted 35 minutes on average and were recorded and transcribed verbatim. To analyze the interviews, we applied King’s (2004) template coding approach and used the software package MAXQDA. The initial coding scheme comprised three codes and included the cognitive dimension, emotions and norms. Throughout the coding process, the cognitive and moral dimensions were structured into 8 and the emotional dimension into five sub codes. Trustworthiness criteria were considered to ensure methodological rigor (cf. Strauss & Corbin, 1990). For instance, feedback was obtained from meetings with firm representatives and the majority of the data was analyzed by two researchers. The qualitative data supported the three dimensions proposed for customer perceived quality of sustainable services. Overall, 352 codes were counted, 160 cognitive quality factors, 39 for emotional and 153 norm-related quality factors (see Table 1).

Table 1. Coding scheme and code counts from the qualitative interviews.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Cognitive</th>
<th>Emotional</th>
<th>Normative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub codes</td>
<td>1) Financial benefits</td>
<td>9) Being enthusiastic about the idea</td>
<td>14) Contributing to the welfare of society</td>
</tr>
<tr>
<td></td>
<td>2) Comfort</td>
<td>10) Trust in the service provider</td>
<td>15) Contributing to the protection of the environment</td>
</tr>
<tr>
<td></td>
<td>3) Flexibility</td>
<td>11) Personal satisfaction</td>
<td>16) Avoiding guilty conscience</td>
</tr>
<tr>
<td></td>
<td>4) Saving time</td>
<td>12) Belonging</td>
<td>17) Sharing</td>
</tr>
<tr>
<td></td>
<td>5) An effective solution</td>
<td>13) Experiencing aesthetics, cleanliness</td>
<td>18) Behaving responsibly</td>
</tr>
<tr>
<td></td>
<td>6) Being informed</td>
<td>14) Being innovative</td>
<td>19) Responsibility for the region/country</td>
</tr>
<tr>
<td></td>
<td>7) Personal service</td>
<td>15) Meeting expectations of others</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8) Ease of access</td>
<td>16) - 21)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No of codes</th>
<th>Car sharing</th>
<th>Electricity</th>
<th>Recycling</th>
<th>Car sharing</th>
<th>Electricity</th>
<th>Recycling</th>
<th>Car sharing</th>
<th>Electricity</th>
<th>Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>72</td>
<td>56</td>
<td>32</td>
<td>18</td>
<td>17</td>
<td>4</td>
<td>59</td>
<td>60</td>
<td>34</td>
</tr>
</tbody>
</table>

Four sub codes were context-specific, three of which were only observed in the car sharing service context: —comfort! (cognitive), —sharing resources! (normative) and —belonging to the group of car sharing users! (emotional). Similarly, in the electricity case this concerned —technical enthusiasm. Overall, the findings support the literature-derived three dimensional conceptualization of perceived quality in sustainable service settings.

3.2. Data collection, analysis and findings of the surveys

The surveys comprise an overall sample of 395 customers (car sharing: 123 – response rate 22% and recycling: 272 – response rate 31%). In the electricity case we surveyed 89 existing customers of the electricity company who were potential target customers for the sustainable service (response rate 19%). We derived a scale with 21 (car sharing) and 18 (recycling and electricity) questions from the codes identified in the qualitative interviews. Overall customer satisfaction (1 item) and co-creation intention (2 items) were measured in line with existing operationalization. All constructs items were measured on 7-point Likert scales (1=strongly disagree; 5=strongly agree).

In the analysis of the data, the item sets for all three sustainable service contexts were first purified and reduced until the recommended cut-off criteria for individual indicator reliabilities, internal consistency, composite reliability and convergent and discriminant validities were met (Hair et al., 2012). The confirmed sustainable service constructs are comparable for the car sharing and recycling context but remarkably different for the electricity context (see Table 2).
Table 2. Factors influencing quality of sustainable services.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Factors</th>
<th>Service Context Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Car sharing</td>
<td>Recycling</td>
</tr>
<tr>
<td>Cognitive</td>
<td>quality of the core service comprising</td>
<td>saving time</td>
</tr>
<tr>
<td></td>
<td>effective solution</td>
<td>effective solution</td>
</tr>
<tr>
<td></td>
<td>quality of the customer service</td>
<td>being informed</td>
</tr>
<tr>
<td></td>
<td>personal service</td>
<td>personal service</td>
</tr>
<tr>
<td>Emotional</td>
<td>emotions towards the service provider</td>
<td>being enthusiastic about the idea</td>
</tr>
<tr>
<td></td>
<td>trust in the service provider</td>
<td>trust in the service provider</td>
</tr>
<tr>
<td></td>
<td>emotions throughout the service process</td>
<td>personal satisfaction</td>
</tr>
<tr>
<td></td>
<td>belonging to group of car sharing people</td>
<td>-</td>
</tr>
<tr>
<td>Normative</td>
<td>altruistic norms</td>
<td>contribution to the welfare of society</td>
</tr>
<tr>
<td></td>
<td>protecting the environment</td>
<td>protecting the environment</td>
</tr>
<tr>
<td></td>
<td>normative self-image</td>
<td>avoiding a bad conscience</td>
</tr>
<tr>
<td></td>
<td>being innovative</td>
<td>-</td>
</tr>
</tbody>
</table>

The most differentiated quality perception is confirmed in the sustainable car sharing context. Here, the construct comprises all three dimensions with six sub-constructs (2 cognitive; 2 emotional and 2 normative). In the recycling context, the quality perception construct lacks any attributes related to emotions throughout the service process and, furthermore, does not include the reinforcement of the normative self-image through the sustainable service co-creation. Finally, in the electricity context only trust in the service provider and the two normative attributes of protecting the environment as well as the contribution to the welfare of the society appear to form the quality perception of sustainable electricity solutions.

At last, we performed structural equation modelling using M-plus to examine the relationship between perceived quality of sustainable services and the (potential) customers’ intention to co-create the sustainable service. In the sustainable electricity service context, no significant impact of the quality perception and the co-creation intention was found. The goodness of fit indices of the different models as well as the path coefficients, significance levels and coefficients of determination are shown in Figure 2.
Results show that the perceived service quality construct comprises all three dimensions and differs only slightly across the two service contexts (for factors and items see Table 2).

4. Discussion and implications

We developed a customer-oriented conceptualization of sustainable service quality and explored the key dimensions as well as the outcome empirically. The paper makes two main contributions, both of which have implications for future research and for managerial practice. On the one hand, the prominence of the normative dimension corroborates the notion that perceived quality of sustainable services is broader than existing service quality concepts. Further research should enhance our understanding of normative qualities and investigate some of the potential trade-offs between the three quality dimensions. For example, the fact that financial benefits were not confirmed to be part of customers’ sustainable service quality could be explained by the fact that customers accept or even expect premium prices if normative qualities such as contributing to the protection of the natural environment are present. From a managerial point of view, the finding that normative qualities are linked with co-creation intention suggests that they should be an equal part of the service value proposition. This in turn, requires a more comprehensive perspective on defining and implementing value propositions in sustainable service contexts (see also Frow & Payne, 2011).

On the other hand, a comparison of the results from the three service contexts suggests that perceived sustainable service qualities are context-specific. Further research should explore some of the context factors which influence customer perceptions. Initial propositions derived from our findings refer to
the level of co-creation in the service process, the type of sustainable service, the market maturity and
the customers’ phase in the buying cycle. Compared with recycling, car sharing requires a higher level
of customer involvement in the service co-creation process over an extended period of time (booking
the car, getting to the pick-up point, driving the car, dropping-off the shared car after driving a.s.o).
This in turn, might explain why emotions throughout the service process or self-image related norms
such as —being innovative—are part of the quality appraisal. Moreover, the type of sustainable service
could also explain systematic differences (Anttonen, 2013). Whereas car sharing is a product-
replacing service, recycling adds value to a product by extending the product lifecycle. In situations
when product-replacing services not only relieve customers of total ownership burdens but also trigger
a loss-aversion effect, customers could have more comprehensive quality expectations. This in turn,
could explain why a less complex quality construct in the recycling service context leads to
comparable impacts on co-creation intention. The results from the electricity company suggest that the
market maturity of the sustainable service and the customer status (existing versus potential service
user) might influence the quality perception. The qualitative data analysis reveals similar service
attribute codes in all three sustainable service settings (see also Table 2). Still, in the quantitative data
analysis, it became apparent that these attributes are not yet manifest in the quality perception
construct of the electricity providers’ innovative service offering. It could be followed that sustainable
services which are relatively new to the market are assessed through an overall judgement based on
trust and benefits perceived from protecting the environment and contributing to the welfare of the
society. Furthermore, the failure of the solar energy service quality perception to affect purchase
intention is in line with the literature (see e.g., Cronin & Taylor 1992). It can be assumed that
compared with existing customers, potential customers do not buy on quality but on other criteria. In
the case of our sustainable solar energy service, among the buying criteria could be for example
government support, positive word-of-mouth or technical knowledge. From a managerial perspective,
the proposed context-specificity implies a consistent —value-in-use— perspective (Vargo & Lusch,
2004) when designing sustainable service offerings and measuring service quality. By mapping the
service process from the customer perspective and by considering the characteristics of the use
situations, insights about the relevant quality dimensions can be gathered.

Moreover, the findings relating to the potential contingency factors have important implications for
effective marketing of sustainable services. For example, highly innovative sustainable services
should first stress customer trust and excitement before emphasizing multiple service quality attributes
appealing to the customers’ cognitive reasoning. Finally, acquiring new customers and retaining
existing customers of sustainable services may require different marketing efforts. Understanding,
measuring and improving the quality of sustainable services could be more important for managing
loyal co-creators than for convincing non-sustainable service users to switch.
References


How university students dispose smartphones and why? Understanding disposition decisions in developing markets

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Abstract

Although consumer behavior is largely described as a process of acquisition, consumption, and disposition, few studies have focused on disposition decisions, particularly in the context of service market in emerging economies. The present study serves as groundwork to determine the factors that affect consumer disposition decisions of smartphones with a focus on university students in Malaysia. Price, brand, compatibility, usefulness, social influence, and product attachment are studied to assess their respective effects on disposition decisions. A quantitative approach was adopted whereby self-administered questionnaire was designed and pre-tested. Questionnaire copies were distributed at universities in Malaysia and subsequently collected. Data were analyzed using PLS-SEM. Compatibility, usefulness, and product attachment are factors that have positive effects on decisions to keep the device. While decision to get rid of smartphones temporarily is affected by social influence and low product attachment, the decision to get rid of the devices permanently is affected by its value. Interestingly, price and brand have no significant relationship with disposition decisions, indicating communication service, rather than the product itself, is a driving factor to disposition decisions. Hence, understanding consumer behavior in its entirety could prove pivotal to service quality and retaining consumers in developing economies.

Keywords: disposition, consumer behavior, service, smartphone, PLS-SEM

* Corresponding author

1. Introduction

Communication is ubiquitous to individuals of all walks of life. Therefore, one of the most widely used products today is smartphone. A smartphone is a device that provides service of digital communication by performing many of the functions which computer and telephone do. The mobile revolution is rapidly converting consumers from using ordinary mobile phones to smartphones in both developed and developing countries (Wong 2011). According to statistics provided by the Ministry of Communication (2011) and Malaysian Communication and Multimedia Commission (2014), Malaysia, with 144% mobile penetration, is outpacing Thailand, Indonesia and even the United States. Smartphone penetration in Malaysia was at 34% in 2012 and 60% at 2015. This figure is expected to rise significantly in the coming years, suggesting the magnitude of innovative communication service.

An increasing number of studies have been conducted in an effort to better explain consumer behaviour. Consumer behaviour can be broken down into three main components, which are acquisition, consumption and disposition (Raghavan 2010). Acquisition and consumption of products (including goods and services) have been considered two of the more important aspects of understanding consumer behaviour, and thus have been studied extensively (Arnould & Craig 2005). Consequently, the third aspect of consumer behaviour, which is disposition, has received far less attention. Despite its relevance to consumer behaviour, little literature can be found to date on
disposition behaviour from the perspective of service market. What are the decisions involved in the disposition process of smartphones and how these decisions tie in with service quality or performance remain unanswered. When the consumers discard smartphones, it is unknown how such behaviour is related to service which smartphones provide. Therefore, the present study serves as groundwork to investigate the disposition decisions of smartphone users in Malaysia through the lens of service. The findings will thus lead to managerial implication from marketing perspectives, and foundation to future research in service marketing in developing economies.

2. Literature review

2.1. Disposition behaviour

According to Jacoby (1976), consumer behaviour is the acquisition, consumption and disposions of good, services, time and ideas by decision making units. Disposition is claimed to be an integral part of consumer behaviour and it can be widely defined as a consumer’s attempt to discard of a product that has outlived its intended purpose (Hanson 1980; Jacoby et al. 1977). For example, a person may decide to dispose of a non-damaged, wearable pair of jeans if he/she perceives the garment to be out of trend. While the pair of jeans may continue to maintain usefulness as an article of clothing, it is perceived by the consumer as out-dated for the purpose of dressing fashionably, hence disposable (Raghavan 2010). Jacoby et al. (1977) state that consumers who want to dispose of a product have three main choices: to keep the product, to temporarily dispose of the product, or permanently dispose of the product.

2.2. Factors affecting disposition decisions

As the present study is a pioneering attempt in Malaysia, six crucial factors in marketing literature, which are predominantly used in assessing acquisition and consumption behaviours, are selected to assess their relationship with three disposition decisions, and they are price, brand, compatibility, usefulness, social influence and product attachment. Firstly, price is defined as the sum of money charged for a product, or the sum of values that consumers are willing to exchange for the benefit of using or owing a product (Kotler & Armstrong 2007). In less developed countries, price is a major consideration affecting consumer choice (Lichtenstein et al. 1993). Secondly, brand is one of the most important assets of a company as it represents what a product signifies to a consumer (Kotler & Armstrong, 2007). The name of a brand has an immediate influence of customers' perception towards the quality of the offering (Azad & Safaei 2012) and subsequent behaviour. Thirdly, compatibility is another important component associated to a technological product like smartphone. It is related to perceived value which is largely defined as the consumer's overall assessment of the utility of a product based on a perception of what is received and what is given (Zeithaml, 1988). Fourthly, product usefulness is usually defined as meeting customer's needs in terms of the product's attributes, features, functionalities or benefits (Gatignon & Xuereb 1997). The usefulness construct has been used extensively in information systems and technology research, and has strong empirical support as an important predictor of technology adoption (Mathieson 1991). Fifthly, social influence refers to the change that one person causes in another, affecting one’s attitude, thoughts, beliefs, behaviour and feelings (Mason et al. 2007). It has been found that young Malaysian adults aged between 19 and 25 have been strongly influenced by parents and celebrities when it comes to purchase intention (de Run et al 2005). Lastly, product attachment is the emotional bond that consumers develop towards an object, usually a specific product which has a significant meaning to the owner (Schifferstein &
Pelgrim 2008). It is included in the present study of disposition behaviour due to its practical relatedness to owning smartphones among university students.

2.3. Framework and hypothesis development

In light of the aforementioned, it is postulated that price, brand, compatibility and usefulness of smartphones, as well as social influence and consumers’ attachment to smartphones have direct effect on disposition decisions. The research framework of the study is thus developed as shown in Figure 1.

Accordingly, three hypotheses are formulated to address the research problems and objectives of the study.

**H1**: Price, brand, compatibility, usefulness, social influence and product attachment will have positive effect on consumers disposition decisions to keep their smartphones.

**H2**: Price, brand, compatibility, usefulness, social influence and product attachment will have positive effect on consumers disposition decisions to get rid of their smartphones temporarily.

**H3**: Price, brand, compatibility, usefulness, social influence and product attachment will have positive effect on consumers disposition decisions to get rid of their smartphones permanently.

3. Research methodology

Quantitative approach which assumes positivist paradigm was adopted in the present study. The target population was made up of all university students from both public and private tertiary institutions in Malaysian. University students were chosen because they were young adults who had potential purchasing power and the ability to make decisions on the preference of choice and purchase. In order to make sure the sample characteristics matched the objectives of the study, a non-probability purposive sampling technique was utilized to ensure the collected data were from valid sources. Sample size estimation was done based on G power analysis and the complexity of the research, such as the number of variables and items (Onwuegbuzie & Collins 2007). Self-administered questionnaire was adopted for data collection, and revised after pre-tests. Apart from statements about demographic details, the questionnaire contained statements about the nine variables under investigation as shown in Figure 1. The variables were measured by either single or multiple items (Hayduk & Littvay 2012). 200 copies of questionnaire were then distributed and 172 copies were subsequently collected after a
month. The response rate of over 70% indicates non-response error was not a concern (Nulty 2008). After initial screening, 165 copies were retained for data entry and various analyses. Partial Least Squares Structural Equation Modeling (PLS-SEM), which uses variance-based approach, was performed to analyze the data and test the hypotheses.

4. Findings

4.1. Measurement model assessment

Table 1 articulates the result of assessment of construct reliability (CR) and convergent validity. The results suggest that the constructs demonstrate high internal consistency (Roldán & Sánchez-Franco 2012) and adequate average variance extracted (AVE) to confirm convergent validity (Hair et al. 2014).

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>BRD</td>
<td>Single Item</td>
<td>0.612</td>
<td>0.861</td>
</tr>
<tr>
<td>Compatibility</td>
<td>COM</td>
<td>Single Item</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Price</td>
<td>PRC</td>
<td>Single Item</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Product Attachment</td>
<td>ATT</td>
<td>Single Item</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Social Influence</td>
<td>SNF</td>
<td>Single Item</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Usefulness</td>
<td>USE</td>
<td>Single Item</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Get Rid Permanently</td>
<td>RIDP.1</td>
<td>0.594</td>
<td>0.612</td>
<td>0.861</td>
</tr>
<tr>
<td></td>
<td>RIDP.2</td>
<td>0.898</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RIDP.3</td>
<td>0.762</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RIDP.4</td>
<td>Removed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RIDP.5</td>
<td>0.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Rid Temporarily</td>
<td>RIDT.1</td>
<td>0.736</td>
<td>0.689</td>
<td>0.814</td>
</tr>
<tr>
<td></td>
<td>RIDT.2</td>
<td>0.914</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keep</td>
<td>KEEP.1</td>
<td>0.728</td>
<td>0.585</td>
<td>0.808</td>
</tr>
<tr>
<td></td>
<td>KEEP.2</td>
<td>0.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KEEP.3</td>
<td>0.797</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To assess discriminant validity, the Heterotrait-Monotrait (HTMT) ratio is used (Henseler et al 2014) as shown in Table 2. When looking at HTMT results, discriminant validity among the constructs is confirmed at HTMT 0.85. As such, it is surmised that there is no issue of multi-collinearity between items loaded on different constructs in the outer model.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>BRD</th>
<th>COM</th>
<th>RIDP</th>
<th>RIDT</th>
<th>KEEP</th>
<th>PRC</th>
<th>ATT</th>
<th>SNF</th>
<th>USE</th>
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<tbody>
<tr>
<td>BRD</td>
<td>0.602</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM</td>
<td>0.199</td>
<td>0.266</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIDP</td>
<td>0.188</td>
<td>0.275</td>
<td>0.798</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIDT</td>
<td>0.365</td>
<td>0.607</td>
<td>0.134</td>
<td>0.419</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KEEP</td>
<td>0.697</td>
<td>0.552</td>
<td>0.263</td>
<td>0.276</td>
<td>0.374</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRC</td>
<td>0.265</td>
<td>0.210</td>
<td>0.090</td>
<td>0.113</td>
<td>0.433</td>
<td>0.192</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATT</td>
<td>0.490</td>
<td>0.382</td>
<td>0.193</td>
<td>0.283</td>
<td>0.347</td>
<td>0.344</td>
<td>0.282</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNF</td>
<td>0.558</td>
<td>0.812</td>
<td>0.192</td>
<td>0.225</td>
<td>0.624</td>
<td>0.514</td>
<td>0.209</td>
<td>0.446</td>
<td></td>
</tr>
</tbody>
</table>
4.2 Assessment of structural model

To test the hypotheses of the study, a 5000 bootstrap re-sampling of the data was conducted (Hair et al. 2014). Table 3 depicts the assessment of path co-efficient or the effect of independent variables on dependent variables. The results show that all three hypotheses are partially supported. Keeping is found to be positively affected by compatibility, usefulness and product attachment. Getting rid of temporarily is positively affected by social influence but negatively affected by product attachment. Getting rid of permanently is only found to be related to compatibility.

Table 3. Assessment of Path Coefficient.

<table>
<thead>
<tr>
<th>Path Relationship</th>
<th>Beta</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price -&gt; Keep</td>
<td>0.067</td>
<td>0.130</td>
<td>0.519</td>
</tr>
<tr>
<td>Price -&gt; Get Rid Temporarily</td>
<td>0.171</td>
<td>0.122</td>
<td>1.398</td>
</tr>
<tr>
<td>Price -&gt; Get Rid Permanently</td>
<td>0.185</td>
<td>0.121</td>
<td>1.526</td>
</tr>
<tr>
<td>Brand -&gt; Keep</td>
<td>0.129</td>
<td>0.121</td>
<td>1.066</td>
</tr>
<tr>
<td>Brand -&gt; Get Rid Temporarily</td>
<td>0.119</td>
<td>0.136</td>
<td>0.872</td>
</tr>
<tr>
<td>Brand -&gt; Get Rid Permanently</td>
<td>-0.092</td>
<td>0.147</td>
<td>0.623</td>
</tr>
<tr>
<td>Compatibility -&gt; Keep</td>
<td>0.227</td>
<td>0.127</td>
<td>1.792**</td>
</tr>
<tr>
<td>Compatibility -&gt; Get Rid Temporarily</td>
<td>0.180</td>
<td>0.158</td>
<td>1.140</td>
</tr>
<tr>
<td>Compatibility -&gt; Get Rid Permanently</td>
<td>0.254</td>
<td>0.138</td>
<td>1.845**</td>
</tr>
<tr>
<td>Usefulness -&gt; Keep</td>
<td>0.308</td>
<td>0.115</td>
<td>2.675**</td>
</tr>
<tr>
<td>Usefulness -&gt; Get Rid Temporarily</td>
<td>-0.018</td>
<td>0.181</td>
<td>0.100</td>
</tr>
<tr>
<td>Usefulness -&gt; Get Rid Permanently</td>
<td>-0.137</td>
<td>0.151</td>
<td>0.911</td>
</tr>
<tr>
<td>Social Influence -&gt; Keep</td>
<td>0.022</td>
<td>0.077</td>
<td>0.289</td>
</tr>
<tr>
<td>Social Influence -&gt; Get Rid Temporarily</td>
<td>0.199</td>
<td>0.102</td>
<td>1.949**</td>
</tr>
<tr>
<td>Social Influence -&gt; Get Rid Permanently</td>
<td>0.125</td>
<td>0.115</td>
<td>1.089</td>
</tr>
<tr>
<td>Product Attachment -&gt; Keep</td>
<td>0.256</td>
<td>0.076</td>
<td>3.353**</td>
</tr>
<tr>
<td>Product Attachment -&gt; Get Rid Temporarily</td>
<td>-0.181</td>
<td>0.087</td>
<td>2.083**</td>
</tr>
<tr>
<td>Product Attachment -&gt; Get Rid Permanently</td>
<td>0.005</td>
<td>0.089</td>
<td>0.052</td>
</tr>
</tbody>
</table>

** p< 0.05

Table 4 shows the quality of the model. On the hypotheses which are tested to have significant relationships, all are found to have carried small effect size. The predictive relevance values for all three dependent variables are larger than 0, indicating that the independent variables are capable of predicting disposition decisions, as indicated by $Q^2$ using blindfolding procedure (Hair et al. 2014).

Table 4. Structural Model Assessment.

<table>
<thead>
<tr>
<th>R2</th>
<th>Q2</th>
<th>Effect size f2</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2</td>
<td>Q2</td>
<td>RIDP</td>
</tr>
<tr>
<td>RIDP</td>
<td>0.088</td>
<td>0.033</td>
</tr>
<tr>
<td>RIDT</td>
<td>0.114</td>
<td>0.046</td>
</tr>
<tr>
<td>KEEP</td>
<td>0.352</td>
<td>0.167</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Discussions and conclusion

This study sets out to determine the factors which influence disposition behaviour of smartphones among university students in a developing economy like Malaysia. Compatibility and product attachment appear to be the most important factors contributing to disposition decision towards their smartphones. Understandably when university students purchase, use and repurchase smartphones,
they put a lot of emphasis on their compatibility. The devices might be pricey, they see value in owning and using them as they could do a lot of things with them, such as doing things online more conveniently and taking photos with superior effect. This corresponds to their decision to keep the smartphones if they still find the devices useful. Besides, most students carry their smartphones all the time no matter where they go and what they do. As a result, many students appear to display a strong bond to their smartphones unless and until they are broken. Noticeably, they do many things with their smartphones, such as conversing with their friends, taking pictures, playing games, listening to music, watching movies and searching for information. This explains why they would only consider getting rid of their smartphones temporarily if they become less attached to the devices, most likely due to having another one with superior functionalities.

Even though most university students own more than two smartphones, they do not usually discard their phones permanently. As long as the devices are still compatible and useful in some ways, they will keep them. They would only consider getting rid of their phones temporarily by renting or lending to their friends who ask for the devices. Interestingly, price and brand are not found to be related to any disposition decisions. This suggests that their decisions to keep and get rid of do not hinge on the price they paid for the products and the brand name. Notwithstanding high price, university students seem to have the ability to purchase smartphones and own the latest models. Even though there are some well-known and established brands such as Apple and Samsung, it is apparent that the students would not hesitate to purchase new smartphones and dispose the existing ones. All these suggest that the product itself is not the driving factor to disposition decision, rather the service which the smartphones provide is. As such, the study highlights the magnitude of service quality and the manner of which communication service is provided by smartphones to better understand not only acquisition and consumption behaviours, but also disposition behaviour.

Although the present study is limited in terms of its theoretical contribution, its findings unveil practical meaningfulness to service marketing in Malaysia. As service quality is more than often found to be imperative in the marketplace, the understanding of consumer behaviour, not only in acquisition and consumption process, but also in disposition decision, would likely give the marketers or managers the cutting edge to serve the customers in a more effective manner. When customers purchase something again, it does not necessarily mean they have discarded what they have had. In the case of smartphones, the university students would buy new smartphones even though the existing ones are still compatible and useful. As such, it is important that smartphone sellers and any service purveyors should come out with a comprehensive plans and actions to keep the customers by facilitating disposition process. By doing so, it is more likely for them to retain the customers and transform their disposition decisions to repurchase behaviour. It is thus necessary to further the investigation into the effect of disposition decisions on the consumer behaviour cycle and its impact on service industry in developing markets.

References
De Run, E. C., Moshin, B. & Chung, Y. N. 2010, _The influence of role models on young adults purchase_, Faculty of Economics and Business University Malaysia Sarawak, pp. 70-81.


Customer perceived value and customer orientation of salespeople in purchasing luxury natural products

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Abstract

Luxury natural skin care (LNSC) products marketed as promoting health improvement open a promotional avenue for consumers to pursue healthier lives. This strategy has resulted in an increase in the demand for luxury products containing natural ingredients. Despite the steady growth of luxury natural skincare products in Thailand, more studies need to focus on Thai purchasing behavior to obtain more robust results. This paper investigated the effects of customer perceived value (price, safety, quality, and prestige values) on consumer repurchase intention and comprehensively analyzed how consumers perceived value and repurchase intention are moderated by customer orientation of salespeople (COSP) in the context of luxury natural products in Thailand. Data were collected from a sample of 302 female consumers of LNSC products in downtown Bangkok, Thailand. Purposive judgment sampling was applied as sampling technique. Partial least square structural equation modeling was employed to test the measurement and structural models. The results showed that out of four independent variables, three, namely, price, quality, and prestige, were significantly positive and affected repurchase intention. Meanwhile, no significant effect of product safety value was detected on repurchase intention. Additionally, COSP had positive moderating effects on consumer perceived product safety, quality, and repurchase intention. However, COSP did not moderate the relationship between price value, prestige value, and repurchase intention. Theory of consumption values was used to explain the results. The empirical results of this paper can be beneficial for business practitioners involved in the luxury natural product industry. These practitioners would gain better comprehension of the factors that increase repurchase intention, and formulate marketing communication strategies as well as facilitate the development of the industry.

Keywords: luxury natural, customers’ perceived value, repurchase intention, customer orientation of salespeople

* Corresponding author

1. Introduction

The constantly growth of natural cosmetic products in the global market is reflected by significant changes in the consumers’ lifestyle. The consumers are more likely concerned with their health by considering if the products contain natural ingredients and by being aware of the harmful effects of the chemicals in the products they consume (Dimitrova, Kaneva, & Gallucci, 2009; Joung, Park, & Ko, 2014). Generally, the growth in the market is relatively driven by richer consumers and increased discretionary income in developed countries. Particularly, income levels of the middle classes in developing countries have also increased dramatically; this has provided of plenty opportunities and increasing demand for natural cosmetic products across the emerging markets (Lopaciuk & Łoboda, 2013). Remarkably, the natural cosmetic products have not only attracted significant demand in both medium and low market, but also in the luxury market (Nagasawa & Kizu, 2013). In fact, the luxury cosmetics sector has been dramatically growing since the last decade (Christodoulides, Michaelidou,
& Li, 2009), and continues to grow steadily in this emerging market until now. However, the growth of luxury natural cosmetics market has been showing contrasting trends with what has been mentioned in the previous literature pertaining to the luxury consumer behavior in the last decade. This has motivated the researcher to study the phenomenon by distinguishing the perspective of consumer behavior from the natural cosmetics luxury market as a niche market by considering the predictive factors.

Accordingly, the cosmetics businesses have faced dramatic increase in demand for natural cosmetic products. This hinders their expansions in the emerging markets and it has created more challenges on their path (KlineGroup, 2014). On one hand, growing consumer preferences towards the natural cosmetic products is imposing on the cosmetics businesses to modify and base their strategies on consumer needs to achieve their long-term business goals. On the other hand, since the emerging market is still at its early stage (Łopaciuk & Łoboda, 2013), most of the businesses have yet to explore information about the consumer behavior towards natural cosmetic products. Therefore, understanding the consumer behavior is a main concern of natural cosmetics industry to develop appropriate business strategies in this particular market.

This study aims to explore the determining factors affecting the repurchase intention within the context of luxury natural products. Particularly, the independent variables include perceived value (price value, safety value, quality value, and prestige value). Additionally, this study also is interested in investigating the moderating role of customer orientation of salespeople (COSP) on the relationship between perceived value and repurchase intention.

Parallel to trying to gain some theoretical perspectives, the study also attempts to provide insights to business or marketing practitioners regarding the consumption of luxury natural products in the cosmetics industry. By providing a clear picture of the determining factors influencing consumer repurchase intention, the results of this study have implications for the LNSC industry, for improving the appropriate marketing strategies to directly encourage consumers’ repurchase intention and enhancing long-term business performance.

2. Literature review

- The theory of consumption values

The theory of consumption values is the main underlying theory for the conceptual model of the current study. The theory contributes multi-elements consumer choice behaviour, addressing why consumers buy or do not buy, depending on a variety of values (Sheth, Newman, & Gross, 1991). Values are useful predictors of behaviour (Dibley & Baker, 2001; Vinson, Scott, & Lamont, 1977), because consumers decide to purchase a product after considering multiple consumption values, such as enjoyment, quality, value-for-money and their trade-offs (Turel, Serenko, & Bontis, 2010). The dimensions of consumption values are independent, meaning that change in one dimension may not necessarily result in changes in others (Turel et al., 2010), and researchers have been able to develop dimensions of the value across the different types of product. Therefore, current study conceptualized the research model with four dimensions of value, including price, product safety, quality and prestige to be suited with the nature of specific products, such as luxury natural products. As this study has expanded the consumption value theory, it assumes that consumer decisions rely on multiple consumption values (Turel et al., 2010), and consumer perceived value is derived from a person’s experience and interaction with a product or service (Turel et al., 2010).
• Perceived value

Numerous scholars have defined perceived value in the marketing literature, such as Holbrook (1996), Woodruff (1997), and Zeithaml (1988, p. 14), who defined perceived value as — the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given. Perceived value is becoming a critical part of business strategic management (Spiteri & Dion, 2004) because it adds significant value to consumer decision’s process behaviour (Bolton & Drew, 1991; Zeithaml, 1988). Consumer perceived value depends on the customer’s experience and knowledge which is a critical factor that helps to draw new customers and keep the present customers (Zeithaml, 1988). In this research, four elements of perceived value has been focused, including price value, safety value, quality value and prestige value. All dimensions were discussed next.

• Price value

Price value is an important factor of consumer purchasing behaviour. Price value in the current project represent high price of the product as a driver of their intention to repurchase. Consumer purchasing behavior is based on price value (Amlani, 2013), and is often considered as one of the key factors consumers consider when purchasing luxury products (Wiedmann, Hennigs, & Siebels, 2007). Previous studies have confirmed a relationship between price value and consumer purchasing behaviour (Roheim, Asche, & Santos, 2011; Wądołowska, Babicz-Zielińska, & Czarnocińska, 2008). For example, Shukla and Purani (2011) have indicated that overall price perception is a major indicator of luxury value, that links to the quality and functionality of luxury goods. Similarity, Hyun and Han (2013) stated that when consumers feel that a particular product is of relatively high quality, they are willing to pay a higher price. To further examine price value, this study assumed that perceived price value has a positive and significant influence on consumer intention to repurchase luxury natural products. Consequently, the following hypothesis is proposed:

H1: Perceived price value is positively related to repurchase intention.

• Product safety value

As mentioned earlier, product safety, which relates to consumer’s health concerns, is one of the key factors of consumer purchase behavior. Based on this phenomenon, several studies focused on the role of product safety in consumer behavior reported that consumers prefer natural products due to their perception that natural and organic products are healthier and safer (Chen, 2011; Kim & Seock, 2009; Kouba, 2003). Similarly, product safety was found to be the important factor for Thai female consumers who purchase natural cosmetic products (Lalit & Kanokthip, 1998). However, Ainunnazlee and Aini (2012) stated that consumers may avoid purchasing natural cosmetic products because of a lack of labelling standards. Although, safety concerns are acknowledged as important in cosmetic consumption, few studies have determined the product safety as the predictor of consumer purchasing behavior (Atkinson & Rosenthal, 2014). Hence, the present study believes that perceived product safety value has a positive impact on consumer intention to repurchase luxury natural product. On this basis the hypothesis is proposed:

H2: Perceived product safety value is positively related to repurchase intention.
Quality value

In marketing research, several studies have shown a direct impact of quality on behavioral intentions. For example, Murphy, Pritchard, and Smith (2000, pp. 46-47) noted — perceptions of quality are surmised to have a direct impact on repeated purchasing intention. Perceived quality plays a major role in consumer behavioral intention (Jacoby & Olson, 1985), and has been evaluated as an antecedent of the repurchase intention (Dawkins & Reichheld, 1990; Lei-Yu, Kuan-Yang, Po-Yuan, & Shu-Ling, 2014) because consumers with high perceptions of quality value are more likely to have positive intentions for future purchasing product (Wong & Zhou, 2010). Based on existing studies, the role of perceived quality value on consumer behavior remains uncertain. Therefore, in this study, quality value is assumed to have positive effect on the repurchase intention. Consequently, the following hypothesis is proposed:

H3: Perceived quality value is positively related to repurchase intention.

Prestige value

Prestige value is the social dimension of luxury value perception which refers to the perceived utility that consumers acquire by consuming products or services within their own social group (Wiedmann et al., 2007). The owners of luxury brands believe that purchasing and possessing luxury products lead others to admire, recognize and accept them (Nia & Zaichkowsky, 2000). Steenkamp, Batra, and Alden (2003) found perceived prestige had a strong influence on consumer consumption of the luxury products when the product displays social status. From this, the current study assumes that if consumers perceive natural products as luxury products, they might be attracted by prestige value, which might lead them to repurchase that particular product. The following hypothesis is proposed:

H4: Perceived prestige value is positively related to repurchase intention.

Customer orientation of salespeople

Salespeople continue to be the focal point of retail outlets (Merk, 2014). From a research perspective, the relationship between consumers and salespeople is one of the major research streams underlying perceived value (Lindgreen & Wynstra, 2005), and the impact of this relationship on customers’ purchase decisions is well documented (Mallalieu, 2006).

Customer Orientation of Salespeople (COSP) as the moderator

Empirical studies sales and customer service employees (Goff, Boles, Bellenger, & Stojack, 1997) have indicated that customer-oriented behaviors are positively related to customers’ commitment to the firm (Donavan & Hocutt, 2001), but consumer may not perceive employees to be as customer-oriented as employees perceive themselves to be. Thus, the current study attempts to extend previous research by measuring the consumer perceived value of customer-orientation of salespeople (COSP), from the consumer's perspective, not from the employee's perspective. The influence of customer orientation of salespeople (COSP) as a predictor for consumer behavior and its moderation upon consumer behavior was acknowledged by Hennig-Thurau (2004). Available literature reveals the impact of customer-oriented behaviors as a predictor for consumer purchase decision-making behavior (Poddar, Donthu, & Wei, 2009; Preis, 2003; Valenzuela, Mulki, & Jaramillo, 2010).
Importantly, research has examined the moderating role of salespeople on the relationships between customer-perceived value, service quality, corporate image and consumers’ intentions (Wang, 2009). The relationship between employees and consumers is crucial in influencing consumers’ consumption motives and satisfaction (Yuksel, 2004), and in reducing customers’ dissatisfaction with a firm’s service when interpersonal relationships between customer and employee are strong (Burnham, Frels, & Mahajan, 2003; Jones, Mothtersbaugh, & Beatty, 2000). Therefore, customer orientation of salespeople (COSP) becomes a moderating variable and the following hypotheses are formulated:

H5 Customer orientation of salespeople strengthens the relationship between perceived price value and repurchase intention

H6 Customer orientation of salespeople strengthens the relationship between perceived product safety value and repurchase intention.

H7 Customer orientation of salespeople strengthen the relationship between perceived quality value and repurchase intention

H8 Customer orientation of salespeople strengthens the relationship between perceived prestige value and repurchase intention.

![Fig.1 Research Model.](image)

3. Methodology

- **Samples**

The study applied purposive judgment sampling method in which participants are drawn from consumers of luxury natural skin care products in Bangkok, Thailand. Bangkok is chosen as the main location for this study since Bangkok is known as the fashion hub in Asia and shopping paradise for the luxury goods (Jitpleecheep & Kositchotethana, 2004; Vanichbuncha, 2012). Additionally, Bangkok is a good middle ground, where the business can successfully test an idea before going regional. Thus, targeting the customers in Bangkok is equivalent to targeting the customers in Southeast Asia (Brzeski, 2012). A total of 302 responses obtained for this study with indication of 65 percent response rate.
• Measuring instruments

The instruments used to collect data for this study were adapted from the previous studies. The scale of price value was revised from Shukla and Purani (2011) and Lichtenstein, Ridgway, and Netemeyer (1993), which includes four items. The scale of product safety value is the revised version from Michaelidou and Hassan (2010), Kim and Seock (2009), and Chen (2011), which includes six items. The scale of quality value is also the revised version from Parvin and Chowdhury (2006) and Kim and Seock (2009), which includes three items. Three scale items relating prestige value are revised from Shukla (2012). There are four constructs of customer orientation of salespeople, including technical skills, social skills, motivation, and decision-making authority, which were revised from Hennig-Thurau (2004), which includes 11 items. Meanwhile the repurchase intention construct is measured using four items from Tsai and Huang (2007) and Sondoh Jr, Omar, Wahid, Ismail, and Harun (2007). All of the items were measured on a five-point Likert scale, where possible answers ranged from strongly disagree (1) to strongly agree (5).

• Procedure

A self-administered questionnaire is applied for the present study. The participants are approached to the high street mall in Bangkok. The potential target must have the experience to purchase and use any luxury natural skin care product during the last three years and must be at least 20 years old or/and above. Assistances are provided to help the respondents to understand the brand of the luxury natural skin care product. Next, the objectives and purposes of the study are explained to the participants to obtain their concerns to participate in this survey. Once, the potential target agreed to participate in the survey, the researchers contributed them the questionnaire to answer which took approximately 10-15 minutes to complete the questionnaire.

4. Data analysis and results

Data are analyzed using Partial Least Squares (PLS). PLS algorithms were employed, to test reliability and validity while structural model analysis was conducted to test the hypotheses. Assessment of measurement and structural models are discussed in detail in the following sections.

4.1 Measurement model assessment

The first step in PLS analysis is to analyze the measurement model (outer model) to establish how well the indicators load on the theoretically defined constructs. Examining the outer model ensures that the survey items are measuring the constructs they were designed to measure, thus ensuring that the survey instrument is reliable (Christmas, 2005). Table 1 shows the loading, composite reliability (CR), and average variance extracted (AVE). The results show that 31 of the items had a main loading of more than 0.708, except for the first item price value (PrV1), which had loading 0.635. Therefore, to assess the main loading 0.7 and AVE 0.5, the first item of price value (PrV1) was removed from the model since this item had a low loading and its removal led to increase in value of AVE (price value) to above 0.50 (Hair, Hult, Ringle, & Sarstedt, 2014).

After the second run, the results show that 31 items had a loading value above 0.7 and AVE was more than 0.5. This result confirms internal consistency among the items for all constructs. Convergent validity assessment builds on the AVE values as the evaluation criterion. The results show that all constructs have AVE above 0.50, which mean AVE, were satisfactory in terms of convergent validity.
Therefore, internal consistency and convergent validity of all measurement models are confirmed. Moreover, discriminant validity was performed to see the level to which a construct is really dissimilar from other construct by empirical standards. Two approaches, namely cross loading and Fornell-Larcker criterion, were employed to assess discriminant validity. According to the results, discriminant validity met for all constructs.

Table 1. Measurement Model Assessment.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Description</th>
<th>Loading</th>
<th>CR*</th>
<th>AVE**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price Value</td>
<td>PrV2</td>
<td>In my point of view… - an item being higher in price makes it more desirable to me.</td>
<td>0.756</td>
<td>0.814</td>
<td>0.593</td>
</tr>
<tr>
<td></td>
<td>PrV3</td>
<td>When I buy the high price of a LNSC product, I can get people attention.</td>
<td>0.794</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PrV4</td>
<td>Buying the most high price LNSC product makes me feel classy.</td>
<td>0.760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product safety</td>
<td>SV1</td>
<td>For the amount of price paid… - LNSC products contain less residues chemical.</td>
<td>0.724</td>
<td>0.907</td>
<td>0.620</td>
</tr>
<tr>
<td></td>
<td>SV2</td>
<td>LNSC products contain no artificial additives ingredients.</td>
<td>0.834</td>
<td>0.797</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SV3</td>
<td>LNSC products contain no synthetic preservatives ingredients.</td>
<td>0.788</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SV4</td>
<td>LNSC products safer to use than conventional products.</td>
<td>0.802</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SV5</td>
<td>LNSC product contains pure natural ingredients.</td>
<td>0.775</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SV6</td>
<td>Using LNSC product contains pure natural ingredients.</td>
<td>0.774</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Value</td>
<td>QV1</td>
<td>LNSC product is pleasant to use.</td>
<td>0.821</td>
<td>0.839</td>
<td>0.637</td>
</tr>
<tr>
<td></td>
<td>QV2</td>
<td>LNSC product is fashionable.</td>
<td>0.890</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>QV3</td>
<td>LNSC product makes my skin healthier.</td>
<td>0.668</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestige Value</td>
<td>PV1</td>
<td>Using LNSC products just because it has status.</td>
<td>0.863</td>
<td>0.905</td>
<td>0.761</td>
</tr>
<tr>
<td></td>
<td>PV2</td>
<td>Using LNSC products are important to me because they make me feel that acceptable in my social group.</td>
<td>0.888</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PV3</td>
<td>Using LNSC products to gain/increase social prestige.</td>
<td>0.866</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer orientation of salespeople</td>
<td>COSP1</td>
<td>The salespeople of luxury natural skin care product… - have a high level of products’ knowledge to delivery to the consumers.</td>
<td>0.770</td>
<td>0.947</td>
<td>0.616</td>
</tr>
<tr>
<td></td>
<td>COSP2</td>
<td>Are expert in their job.</td>
<td>0.774</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP3</td>
<td>Are highly competent.</td>
<td>0.753</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP4</td>
<td>Have extensive interpersonal skills.</td>
<td>0.828</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP5</td>
<td>Are able to consider their consumer’s perspective.</td>
<td>0.794</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP6</td>
<td>Know how to treat a consumer well.</td>
<td>0.798</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP7</td>
<td>Are committed to their designed position in the work environment.</td>
<td>0.820</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP8</td>
<td>Do their best to fulfil their consumer’s needs.</td>
<td>0.826</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP9</td>
<td>Are always highly motivated to assist the consumers.</td>
<td>0.748</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP10</td>
<td>Are capable to decide autonomously in consumes matters.</td>
<td>0.826</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COSP11</td>
<td>Can give a prompt response in any case of consumer requests.</td>
<td>0.748</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repurchase Intention</td>
<td>RPI1</td>
<td>I consider myself a loyal patron of luxury natural skin care products.</td>
<td>0.869</td>
<td>0.936</td>
<td>0.785</td>
</tr>
<tr>
<td></td>
<td>RPI2</td>
<td>I am more likely to repurchase luxury natural</td>
<td>0.902</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Upon completion of reliability and validity tests for the first-order constructs, testing of reflective measurements for reliability and validity of the second-order constructs was required. The second run of the standard PLS-SEM algorithm generates results of reliability and validity of the second-order construct. The measurement model results of the second-order of COSP, which shows that all reflective constructs have a loading above 0.8, significant at $p < 0.01$. The composite reliability (CR) values are above the threshold of 0.7 and have AVE values, which is considerably above the critical value of 0.5. Therefore, internal consistency and convergent validity of four reflective constructs (technical skill, social skill, motivation skill, and decision-making authority) of second-order of COSP is confirmed.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Loading</th>
<th>CR*</th>
<th>AVE**</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPI3</td>
<td>I would consider luxury natural skin care products as my first choice if I had to choose again.</td>
<td>0.876</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RPI4</td>
<td>I intend to repurchase luxury natural skin care products during the next 3 months.</td>
<td>0.896</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: CR = composite reliability; AVE = average variance extracted

Discriminant validity was assessed for second-order constructs using cross-loading and Fornell-Larcker criterion analysis. The item loading show that the associated construct is greater than all of its loadings on other constructs (cross-loading). Therefore, the first assumption of discriminant validity for second-order construct is accepted. Furthermore, Table 3 illustrates the Fornell-Larcker criterion, which shows that the square root of the average variance extracted (as shown on the diagonal, in bold) is greater than the correlations between the constructs. In conclusion, since the results from the reflective measurement constructs display acceptable levels of quality, the data can progress to the evaluation of the structural model.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical skill</td>
<td>0.849**</td>
<td>0.930</td>
<td>0.770</td>
</tr>
<tr>
<td>Social skill</td>
<td>0.918**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation skill</td>
<td>0.919**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision-making authority</td>
<td>0.820**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Fornell-Larcker Criterion Analysis of Second-Order.

<table>
<thead>
<tr>
<th>PV</th>
<th>PrV</th>
<th>QV</th>
<th>RPI</th>
<th>SV</th>
<th>COSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV</td>
<td>0.873</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PrV</td>
<td>0.549</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QV</td>
<td>0.185</td>
<td>0.302</td>
<td>0.798</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RPI</td>
<td>0.367</td>
<td>0.411</td>
<td>0.452</td>
<td>0.886</td>
<td></td>
</tr>
<tr>
<td>SV</td>
<td>0.161</td>
<td>0.300</td>
<td>0.640</td>
<td>0.384</td>
<td>0.787</td>
</tr>
<tr>
<td>COSP</td>
<td>0.195</td>
<td>0.134</td>
<td>0.411</td>
<td>0.0284</td>
<td>0.327</td>
</tr>
</tbody>
</table>

Note: Diagonals (in bold) represent the square root of the average variance extracted and off-diagonals represent the correlations.

4.2 Structure model assessment

The next step in PLS-SEM is to test the relationships between constructs (Chin, 2101). To test this, the researcher examined the path loadings between constructs to identify significance, using a
computed $t$ value, which involved running all the data through a bootstrapping procedure with 302 bootstrap cases and 5,000 bootstrap samples using the no sign changes option, and replacing missing values with mean (Hair et al., 2014).

Among the four hypotheses proposed, the relationships between perceived value (i.e., price value, quality value, prestige value) and repurchase intention, three hypotheses are found to be significant. Price value had the most positive significance related to repurchase intention ($\beta = 0.190, p = 0.01$). The consumer perceived high price value was toward the intention to repurchase LNSC products (supporting H1). Quality value had positive significant effect on the repurchase intention ($\beta = 0.261, p = 0.01$). Thus, the results show that consumer who perceived high quality value on NLSC are more likely to intent to repurchase (supporting H3). The study also found that prestige value was positively significant related to repurchase intention ($\beta = 0.178, p = 0.01$). Perceived high prestige value on purchasing NLSC leads consumer to repurchase intention (supporting H4).

Next, the moderating effect of customer orientation of salespeople (COSP) between perceived value (price, product safety, quality, and prestige and repurchase intention was test in hypothesis H5, H6, H7, and 78, respectively. The results show that COSP has an impact on three perceived value–product safety value and quality value, with ($\beta = 0.158, p = 0.05$), ($\beta = 0.141, p = 0.05$). Thus, the results support H6 and H7.

5. Discussion

Current literature provides empirical evidence that the desire for and the consumption of luxury brands involves several elements of customer perceived value. The attribution of natural and luxury product may not be the same (Low, 2010), and in some cases there might the overlap of the values between the two category of the product for the case of luxury natural product. There is scant empirical research that examines customer perceived value in the context of luxury natural consumption. In luxury cosmetic industry, like luxury natural cosmetic, the formula behind their purchasing behaviour might be different from common product (Vigneron & Johnson, 2004), and therefore it is not acceptable to assume that the dimensions of the value are applicable in the context of luxury natural consumption. Thus, the aims of this study is (1) to offer useful information as the practical guidelines for luxury cosmetic firms and other types of businesses wishing to successfully understand customer perceived value (CPV) and the role of salespeople and (2) to improve our understanding of its impact on consumer repurchase intention. The determinants of consumers repurchase intention towards luxury natural products were investigated from the perceived value aspects (price, product safety, quality, and prestige value) and customer orientation of salespeople (COSP). COSP was tested as a moderator between the relationship of perceived value and repurchase intention. For the direct relationship between the dimensions of perceived value and repurchased intention, the results of this study show that price value had the most positive influence on the repurchase intention. The results consistent with the prior study by Shukla and Purani (2011), who posited that consumer perceived high price had a positive effect on their purchasing behaviour for luxury products. Second, this study also found that quality value had a positive significant impact on repurchase intention which is in line with Wong and Zhou (2010) who mentioned that consumers with high quality’s perception value are more likely to have positive repurchase intention. Finally, prestige value was found to have the positive effect on the repurchase intention. Similar to the findings of Lee, Chen, and Wang (2014) who stated that visual art enhances consumers’ perceived prestige of luxury products and leads to the purchase behaviour that is; customers expect the luxury natural product to clearly reflect the symbol value in order to show the prestige of purchasing this product. Surprisingly, this study found that product safety value did not have significant effect on consumer repurchase.
intention. A possible explanation for this result may be the fact that consumers in developing countries often do not have access to information about products (Fotopoulos & Krystallis, 2002), and the lack of knowledge means they are not aware of potential safety concerns (Mitra, Reiss, & Capella, 1999).

Next, the study has tested the moderating effect of customer orientation of salespeople (COSP) on the relationship perceived value (price, product safety, quality, and prestige value) and the repurchase intention in the context of luxury natural product. The findings revealed that COSP have moderating effect on the relationship between two values (product safety value and quality value) and repurchase intention. The moderating effect of COSP between product safety and repurchase intention indicated that consumers are more likely to perceive product with higher safety value if consumers perceived a high level of COSP. Reviewing the literature from different disciplines brings further explanations for this moderating effect. For example, Mallalieu (2006) explained that the service employees are the key important factor in consumer purchasing behaviour of service and products. Moreover, service employees of retail businesses play an interactive role with consumers’ future purchase intention, which leads to creating long term relationships between consumers and businesses (Singh & Koshy, 2012). Finally, the moderating effect of COSP on the relationship between the quality value and the repurchase intention. The findings show that when the level of perceived quality value increases, consumers with a high perceived COSP appear to demonstrate stronger repurchase intentions. This finding corroborates the empirical work of Wang (2009) who found, in context of salon businesses, that service employees ultimately persuade consumers to raise their perceived service quality, which leads to recommend intentions. However, current study found that COSP did not strengthens the relationship between the price value and the prestige value. This is probably due to the fact that salespeople are individuals who serve as the company’s representative, and as such is affiliated with the performance of the LNSC products in term of price value and prestige value. According to the definitions of luxury consumption (McKinsey, 1990; Mortelmans, 2005; Veblen, 1899), high price and status consumption is the basic features of luxury product. Thus, consumers’ intent to repurchase which affected by price an and prestige value might not generate by salespeople. In summary, the value of price value, product safety and product quality will be noticed more by the consumers if they perceive of COSP is high.

6. Conclusion and implications

This section provides a conclusion based on the major results of the study. The study is aimed to further enhance the understanding of the impact of the various dimensions of the perceived value (i.e. price value, product safety value, quality value, and prestige value) on consumer repurchase intention towards the LNSC products. The findings of the study present practitioners with a feasible path of achieving consumer behavioural intention to repurchase the luxury natural skin care products. The study provides substantial insights to the body of research as firstly, it considers consumer purchasing behaviour in the context of luxury natural consumption, which has been under-examined. The results of this study reveal that the price, quality, and prestige value are important determinants of customers repurchase of luxury natural products. Thus, the results of the current study support the theory of consumption values. The theory identifies that consumer choice behaviour is based on the multiple consumption values. Consumer’s decision making relies on a diversity of values (Sheth et al., 1991). Secondly, this study helps the business practitioners and marketers to better understand and highlight the major factors namely price, quality and prestige in their marketing strategies. Marketing strategies for salespeople will be more effective if issues of price, product safety, and quality are highlighted.
Thus, the outcomes of this study have important implications for business practitioners and marketers in the luxury natural cosmetic industry.

However, some limitations in this study should not be overlooked. The first limitation of this study is that luxury natural products are viewed as the unique product, which is formed by two different perspectives; natural and luxury. Thus, the results of the current study should be treated with the caution if applied to other products across different industries. Second, although the sample of participants might be an accurate reflection of Thai consumers in metropolitan area and business shopping centers, it is not representative of the general population. Lastly, skin care products fall into many categories, and thus these findings may not be generalizable across all skin care products.

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References


A design of information service for cultural tourism

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\textsuperscript{b}National Electronics and Computer Technology Center (NECTEC), Thailand
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Abstract

Visitors are persons from different cultures. They have a personal hold of their beliefs, values, assumptions, and the manner in which they view the world. Most of them lack sufficient knowledge to understand the values of cultural resources in a tourism destination. A visitor experiences difficulty in achieving his or her goal from cultural tourism activities because of this reason. Visitors cannot identify values that they want to learn, experience, and entertain. In achieving the goal, the transfer of cultural knowledge of destination to visitor becomes the most important issue. This study proposed a design of information service to support the planning stage of cultural tourism. The dependent story of cultural resources according to their values is used to stimulate visitors’ interest. Multiple aspects of culture are analyzed to organize cultural routes. Through the nominated cultural routes made according to cultural values, visitors can receive new insights and understanding of the destination according to the values of culture. They can expect to learn, experience, and be entertained by the presented values of each viewpoints.

Keywords: cultural tourism, trip planning, knowledge transfer, enlightening, ontology

1. Introduction

Cultural Tourism is a genre of special interest tourism that visitor has a specific purpose to learn, experience and entertain from the values of cultural resources. Cultural values are not only physical attributes but also including with its aspect such as belief, folk wisdom (social's knowledge), arts, history, etc. By this reason, each tourism destination has their unique identity. The same cultural resources may have different values in the different area. The values can be varied based on the context of destination society. However, visitors are the person from the foreign country; they have personally hold of theirs belief, values, assumptions, and the way they view the world. Most of them do not have enough knowledge to understand the values of cultural resources in a tourism destination. By this reason, it is difficult for a visitor to benefit from cultural tourism activities. Visitors cannot identify values that they want to learn, experience and entertain from. They will arrange the trip plan based on their viewpoints that may not reflect the real values of destination. The benefit of the travel according to that trip plan may not match their expectation. It is quite difficult for the information service to provide tourism information adapt to each visitor's stereotype in cultural tourism. It is also difficult for the visitor to adapt his viewpoints to a foreign country.

To support visitors to extend or adapt their viewpoints to the destination culture, this research aims at developing information service for cultural tourism to enlightening visitors about Thai culture. The main contributions are 1) Design cultural knowledge to reflect the real values of destination culture for cultural tourism. 2) Create an environment (trip plans) to support the transfer of cultural
knowledge (explicit and implicit) to the visitor. 3) Present information to stimulate visitor’s interest and adapt their viewpoints according to destination culture.

2. Related works

2.1. What is cultural tourism?

‗Culture‘ was labeled by Raymond Williams (1983) as one of the most complicated words in the English language, and it has just as much variation in interpretation in most other languages as well. According to Littrell (1997), culture can be viewed as comprising what people think (attitudes, beliefs, ideas and values), what people do (normative behavior patterns or way of life) and what people make (artworks, artifacts, cultural products). Many philosophers proposed a different definition of culture include Tylor (1871) and Hofsted (1997). However, one of the well-accepted definitions is from Roshan Cultural Heritage Institute, according to which —Culture refers to the following Ways of Life, including but not limited to:

- Language: the oldest human institution and the most sophisticated medium of expression.
- Arts & Sciences: the most advanced and refined forms of human expression.
- Thought: the ways in which people perceive, interpret, and understand the world around them.
- Spirituality: the value system transmitted through generations for the inner well-being of human beings, expressed through language and actions.
- Social activity: the shared pursuits within a cultural community, demonstrated in a variety of festivities and life-celebrating events.
- Interaction: the social aspects of human contact, including the give-and-take of socialization, negotiation, protocol, and conventions.

Based on the above mentioned we can state that culture is part of the lifestyle which a multitude of people is sharing. The similarities in spoken and written language, behavior, lifestyle, customs, heritage, ideology and even technology connect the individuals to groups of people in a certain culture. Not just consumption of the cultural products of the past, but also of contemporary/popular culture or the ‗way of life‘ of people in the region. In this paper, we model cultural tourism ontology based on the definition from Roshan Cultural Heritage Institute and Littrell (1997) in order to capture as much as possible of cultural aspects to benefit in cultural tourism.

Cultural Tourism, McKercher, and Du Cros identified four different type of cultural tourism definition: tourism derived definitions, motivational definitions, conceptual definitions and operational or technical definitions. The tourism derived definitions essentially look at cultural tourism from the perspective of the tourism industry or the tourism system. For example, ECTARC (1989) define the resources involved in cultural tourism as:

a) Archaeological sites and museums
b) Architecture (ruins, famous buildings, whole towns)
c) Art, sculpture, crafts, galleries, festivals, events
d) Music and dance (classical, folk, contemporary)
e) Drama (theater, films, dramatists)
f) Language and literature study, tours, events
g) Religious festival, pilgrimages
h) Complete (folk or primitive) cultures and sub-cultures.
A similar approach is adopted by Munsters (1996) who classifies a wide range of cultural tourism attractions in Netherlands and Belgium. In contrast, motivational definitions usually begin with the tourists themselves and their reasons for travel. But, it should be recognized that ‘purpose of visit’ is usually identified concerning fairly general categories (such as leisure, business or visiting friends and family) and that traveling to visit a cultural attraction does not always mean that the visitor is culturally motivated (Richards, 2003). One of the most important professional initiatives of cultural tourism is provided by the ATLAS Cultural Tourism Research Project with was aiming to establish a transnational database which could provide comparative data on cultural tourism trends across Europe. The ATLAS program provides two new definitions from a conceptual and technical perspective:

**Conceptual definition**

—The movement of persons to cultural manifestations away from their normal place of residence, with the intention to gather new information and experiences to satisfy their cultural needs.

**Technical definition**

—All movements of persons to specific cultural attractions, such as museums, heritage sites, artistic performances and festivals outside their normal place of residence.

In this paper, we use the definition of cultural tourism is —a genre of special interest tourism that visitor has a specific purpose to learn, experience and entertain from the values of cultural resources. The values of cultural resources are not only physical attributes but also including with its aspect such as belief, folk wisdom (social's knowledge), arts, history, etc. definition that try to cover both conceptual and technical perspective.

Cultural Tourist Typologies: Bywater (1993), distinguished between visitors who were culturally interested, culturally motivated and culturally inspired. Culturally interested tourists are those who have a fairly general interest in culture and will consume cultural attractions casually as part of a holiday rather than consciously planning to do so. Culturally motivated tourist is those who consume culture as a major part of their holiday experience, but who are not choosing their destination on the basis of specific cultural experiences. Culturally inspired tourist is those who see culture as the main goal of their holiday and who will travel a long distance to collect cultural experiences. A more complex typology was proposed by McKercher and Du Cros (2002), who argued that not only the importance of culture in the decision to travel should be taken into account in constructing a typology, but that the ‘depth of experience’ being sought by the tourist was also important. Based on this idea, they produced a two-dimensional typology which divides cultural tourists into five groups.
Fig. 1. The typology of cultural tourist by McKercher and Du Cros.

The basis of this distinction (in Figure 1) is the extent of a tourist involved in cultural tourism. The first three groups create such a demand side in which decision for travel culture and cultural tourism plays an important role while to 4th and the 5th group is such tourist who is only casually and incidentally involved in this part of the travel industry. Naturally, those tourists are involved the most in cultural tourism who belong to the first group. The boundary between each category is very hard to be determined; tourists can be totally, partially or only incidentally be involved in cultural tourism or culturally motivated activities. Most of the tourist will be registered to the ‘incidental’ category, and the least amount of people will travel to an attraction or destination with a 100% of cultural motivation. This paper focus on visitor in 3rd, 4th and 5th group, Information service in this research aim to increase the motivation by cultural need of them. The viewpoints of destination according to cultural values will stimulate theirs interest.

2.2. Cultural knowledge and resources

In 2003, CIDOC Conceptual Reference Model (CRM) (Doerr, 2003) was proposed as a high-level ontology to enable information integration for cultural heritage data and their correlation with library and archive information. The CIDOC CRM now become an ISO standard ISO 21127:2006; ISO 21127:2014). Many of research and portal are apply CIDOC CRM as the standard for cultural archives. Europeana Data Model (EDM) (Doerr, 2010) is built upon established standard like RDF(S), OAI-ORE, SKOS, and Dublin Core. It acts as a common top-level ontology which retains original data models and information perspectives while at the same time enabling interoperability. Europeana Cultural Portal is an implementation of EDM; they provide a platform for European cultural resources. Focus on the exchange of cultural collection among member of European countries. In Finnish Cultural Portal, situation ontology (Junnila, Hyvonen, & Salminen, 2006) have been used to describe cultural objects, such as artifacts, by their physical or media-specific properties, or by the life cycle of the objects in the collection. By this approach, different kinds of cultural content through the situations and actions that take place in the real world be able to link together in the meaningful ways with explanations. A collection of content in the implementation prototype (CulturalSampo) are paintings, artifacts, photographs, videos, cultural processes and stories. CIDOC CRM, EDM, and Finnish Cultural Metadata are a focus on the exchange of cultural collections. The More Advance Upper Ontology for Culture (MAOUC) (Blanchard & Mizoguchi, 2014) is a heavyweight ontology engineering initiative to obtain a neutral, theory-driven, conceptualization of the cultural domain, and as such it intends to address several objectives related to the development of culturally-aware
technology. MAUOC also remains abstract and must be positioned into a larger ontological effort whose aim is to scaffold the development of future operational solutions for developing the culturally-aware technology. In cultural tourism domain, visitors aim to learn, experience and entertain from the value of culture in the destination. To support cultural tourism activities, cultural knowledge has to reflect the identity of destination culture. By our knowledge, most of the existing projects are design for generally used in culture domain. None of them focus on supporting cultural tourism.

2.3. Trip planning services

To provide service for pre-trip stage, SigTur/E-Destination (Moreno, et al, 2013) is the recommender that takes into account many different kinds of data: demographic information, travel motivations, the actions of the user on the system, the ratings provided by the user, the opinions of users with similar demographic characteristics or similar tastes, etc. In 2009, an intelligent system (Huang & Bian, 2009) to provide personalized recommendations of tourist attractions in an unfamiliar city through tourism ontology was developed, the system allows integration of heterogeneous online travel information. Based on Bayesian network technique and the analytic hierarchy process (AHP) method, the system recommends tourist attractions to a user by taking into account the travel behavior both of the user and of other users. Spatial web services technology is embedded in the system to provide GIS functions. Also, the system provides an interactive geographic interface for displaying the recommendation results as well as obtaining users’ feedback. In 2010, an automatically system (Blanco et al., 2010) apply ontology to infers the users’ preferences from their TV viewing histories, i.e., the tourism resources the users might appreciate are selected by considering the TV contents they enjoyed in the past. To this aim, we have developed a context-aware semantics-based recommendation strategy that considers both the users’ preferences and the interests of like-minded individuals. The benefit of inference mechanism is used to discover similarity point of interest for general domain tourism. Other projects (Soo and Liang, 2001; Lee et al., 2007; Castillo et al., 2008; Niaraki and Kim, 2009; Yu and Chang, 2009) also introduce different techniques to provide planning services for traditional (mass) tourism. However, special purpose tourism such as cultural tourism has their specific characters. Visitors focus on values of the culture that they can learn, experience and entertain. To archive cultural tourism goal, specific services to support cultural planning are required. Cultural values of destination should be the main components in the trip plan. The trip plan should be used as the guideline to create an environment for support visitors. Without concern for cultural values, the goal of cultural tourism may not be reached.

3. Proposed information service

![Diagram of Information Service Framework](image)
Visitors are the person from foreign society; they have personally hold of theirs belief, values, assumptions, and the way they view the world. Destination society has an identity of culture; people share common knowledge, experience belief, and tradition. The way of they view the world also unique. Viewpoints of destination society may be different compare to a foreigner. By this reason, it is difficult for a visitor to adapt his viewpoints to a foreign country. Without the ability to understand cultural values of destination. Visitors cannot set up the cultural need for visiting destination. Therefore, cultural tourism activities become less interest. The purposed information service is entered to provide the viewpoints of destination society according to its cultural values. By the supported of cultural knowledge. Social's appreciation of heritages can reflect to the viewpoints of destination society. The visitor can observe viewpoints of destination society, to adapt their viewpoints according to destination culture. Environment (trip plan) to support cultural knowledge transfer is the output of service. Explicit knowledge can be transferred from the planning process. Nominated viewpoints will help the visitor to reflect theirs understanding of destination. The rest of cultural knowledge (implicit knowledge) can be transferred in the on-trip process via experiencing.

3.1. Design of cultural tourism ontology

Ontology is a controlled vocabulary that describes objects and the relation between them to reflect the real world. Ontologies provide a sound basis for sharing domain knowledge between human and computer programs, or between computer programs. In this research, we use ontology to design cultural knowledge to reflect the real values of destination culture for cultural tourism activities. Fig.3. Show the design structure of cultural tourism ontology. Culture concepts can be classified into two groups. 1) General concepts: groups of upper-level concept that generic for every destination. 2) Dependent concepts: groups of specific concepts that depend on the culture of the destination. To applied service or ontology in a specific destination, dependent concepts have to change according to destination culture. For a description of the design concepts:

*The thing* is the concepts to represent the universe of our interest in the cultural domain. Denoted by direction of the arrows, the lower concepts are special kind of the upper concept.

- **Real World**: use to represent the thing that has evident to support of its existing. Not only the tangible object but including with intangible thing such as folktale, folk wisdom (knowledge), language, religion, etc.
Fig. 3. Cultural Tourism Ontology Structure.

- **Cultural Points of Interest**: use to represent the cultural point of interest (tourist visit site), the important component of this concept is composed of Cultural Attractions. For example. 1) Wat Phra Kaew has an Emerald Buddha, Ramayana mural and Statue of Kinnara as cultural attractions. 2) Koh Kred community has pottery products and pottery folk wisdom as cultural attractions. 3) Naga fireball festival has the activities support belief about the mythical animal (Naga) as a cultural attraction.

- **Cultural Components**: use to represent culturally related concepts (products/process of human) that represent the identity of people in destination society. Cultural Heritage and Cultural Goods belong to these concepts.

- **Cultural Heritages**: represent things that originally created in the past, pass from generation to generation until the present time. It includes with Tangible Cultural Heritages and Intangible Cultural Heritages.

- **Tangible Cultural Heritages**: use to represent physical things that reflect some aspects of social’s identity. We can classify Tangible Cultural Heritage into Cultural Heritage Building and Cultural Heritage Objects. 1) Cultural Heritage Building represents static construction that not intent to move such as Building, Monument, Chedi (pagoda), etc. Cultural Heritage Building also can exhibit other attractions too. For example, Ubosot Wat Phra Kaew exhibits Emerald Buddha. Chedi Phrathat Haripunchai exhibits sacred items inside. 2) Cultural Heritage Objects use to represent a moveable object such as tools, a statue of Buddha image, painting, etc.
• **Intangible Cultural Heritages:** this part of cultural heritage use to represent non-physical heritages that pass from generation to generation. We can classify into **Belief, Tradition, Folk Wisdoms, Story, Language, and Religion.** 1) **Belief:** a mutual understanding of people in society. For example belief about —Phra Mae Khongkha is the goddess of water, or —Phra Mae Khongkha can give the good luck for people. 2) **Tradition:** the activity to response belief of people. For example —floating a raft is a tradition to response the belief of Phr Mae Khongkha can give the good luck for people. 3) **Folk Wisdom:** the unique knowledge that passes from generation to generation. For example Thai Massage folk wisdom, Thai food recipe, Textile folk wisdom, and Thai Handicraft folk wisdom. 4) **Story:** series of event that related to cultural attractions. The story can be classified as a **Historical story, Religious story, and Folktales.** 5) **Languages.** 6) **Religion.**

• **Cultural Goods:** use to represent **Cultural Attractions** that visitor can take back (**Cultural Products**) or get direct experience with the services (**Cultural Services**)

• **Cultural Products:** represent physical products that reflect some cultural aspects. For example Sin Tin Jok from Mae Jam district that using Textile folk wisdom knowledge to produced, Handicraft products from Bangsai Art and Craft Center, an implementation of Handicraft folk wisdom knowledge.

• **Cultural Services:** represent services that provide a cultural experience for the visitor, including **Temporal Services** and **Permanent Services** 1) **Temporal Services** or Festival is the simulated atmosphere of cultural activity that depends on seasoning. Allow visitor to have experience with it. For example Songkran Festival at Khao San road, Poi Sang Long Festival in Maehongson province, Buffalo competition Festival in Chonburi province. 2) **Permanent Services** is the simulated atmosphere of cultural activity that not depend on seasoning. Allow visitor to have experience with it. For example Long Neck Karen community that provides an atmosphere of Karen minority group living way of life, Thai Massage service in Wat Pho that provides traditional massage. Traditional Khuntoke Dinner to provide tradition Northern style of Thai foods. Thai Boxing shows that show traditional Thai martial arts.

• **Cultural Actor:** represent a person, a group of person or organization that act as a key in any cultural activities.

• **Virtual World:** use to represent anything else that not real, an imagination of people that not exist in the real world such as **Mythical Person, Mythical Animal, Mythical Place, Supernatural spirit.** In Thailand (same as other destination), folk tale and belief always refer to the thing that cannot prove of existing such as Naka (Mythical animal), Spirit of Phratat (Supernatural spirit), Vishnu (God), Vessantara (Mythical Person, the name of Buddha in his tenth existence).
Dependent concepts are the groups of concepts that use to represent the identity of destination culture, in this research we use Thailand as an example case. An example of Thai dependent concepts is *Thai Music Instruments, Traditional Thai Massage, Thai Food Recipe,* etc.

### 3.2. Thailand cultural resources

In this research, 186 cultural points of interest are selected to be a seed information for the proposed service. Cover the area of the central zone of Thailand including Bangkok, Ayutthaya, Kanchanaburi, Singburi, Lopburi for a possible three days trip plan. To create a storage of cultural heritage, we extract cultural information of 186 destinations from the following sources of cultural information:

- Thai Cultural Knowledge Center Website (www.m-culture.in.th) by the initiation of Ministry of Culture and National Electronics and Computer Technology Center (NECTEC) has a responsibility to record and provide cultural information. Cultural staff from Ministry of Culture in all provinces contribute to record cultural information into the system. Since 2011, more than 100,000 cultural items are archived in this portal. Compare to the target destinations in this research, only 20% in the lists are founded in the website.
- Wikipedia provides a structure information related to the interested cultural point of interest. Most of the information of target destination in this research (>80%) are available on Wikipedia website.

We define data structure of a cultural database according to a defined concepts in Cultural Tourism Ontology (Fig.3 and Fig.4). To prepare ontology instants, Step 1) Relation Extraction model from A Cultural Databased (Watchira, Virach & Thatsanee, 2013) is applied.

Table 1. Concept & Relation Template.

<table>
<thead>
<tr>
<th>Domain Concept</th>
<th>Relation</th>
<th>Surface</th>
<th>Range Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Point Of Interest</td>
<td>Has_Location</td>
<td>ที่ตั้ง,ตั้งอยู่ที่,ตั้งที่</td>
<td>Geographic Location</td>
</tr>
<tr>
<td>Cultural Point Of Interest</td>
<td>Has_Cultural_Attraction</td>
<td>จัดแสดง,มีจุดสนใจ,เป็นที่ประดิษฐานของ</td>
<td>Cultural_Attraction</td>
</tr>
<tr>
<td>Cultural Point Of Interest</td>
<td>Has_Founder</td>
<td>สร้างโดย,สร้างขึ้นโดย,ตั้งโดย,โดย</td>
<td>Cultural Person</td>
</tr>
</tbody>
</table>

Concept and Relation template for each concept in Cultural Tourism Ontology are created. For example, a defined template for Cultural Point of Interest (Table.1) is used as a template for cultural information extraction. Domain and range concepts of the defined relations are extracted from sources of cultural information. The surface forms of the relations used for searching the relation texts. By this process, corresponds information from cultural sources are mapped to the defined structure (Fig.4). List of concepts and relations are extracted and keep in database format. After this process, we still need cultural experts to clean and revise data. Some information that not exist in cultural information sources (such as belief, folk wisdom, folk tales, tradition, etc.) have to manual input by cultural experts. In the plan, sources of cultural information that related to the missing part will be included.

Step 2) there are two methods in instantiation process. The first method is to use a model editor (instance editor) which is an engine provided by Hozo or Protégé. The second method that we used in this paper is a mapping from database format (from the previous step) to be the instances of ontology. By applying programming interface such as Jena and Jastor API from OAM framework (Marut et al., 2016).
3.3. Culture aspect and dependent stories

The Cultural aspect is the reference projection of person’s viewpoint. The examples of cultural aspects are historical, arts, cultural person, folk wisdom (knowledge), belief, etc.

The dependent story is the series of heritage related events according to cultural aspect. An example of the dependent story is History of Emerald Buddha, events related to the creation, rebuild, and visit (Table 2.) can be grouped as a single story.

In cultural domain, a single cultural point of interest can have multiple related aspects. For example, Wat Phra Kaew has values in architecture, historical, religion, believe, etc. By considering of some cultural aspects, each of cultural point of interest can be linked to some dependent stories to provide related viewpoints. In this research, to introduce social’s viewpoint, dependent stories are used as a trigger to stimulate visitor’s interest. The Cultural point of interest according to each dependent stories are arranged to create an environment (trip plan) to educate visitor. List of dependent story template is shown in Table 2.

Table 2. Dependent story template.

<table>
<thead>
<tr>
<th>Dependent story</th>
<th>Meaning</th>
<th>Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>History/Traverse story</td>
<td>Historical timeline of created/rebuild/visit</td>
<td>Cultural Points of Interest, Cultural Attraction</td>
</tr>
<tr>
<td>Historical events</td>
<td>Historical timeline of event</td>
<td>Cultural Points of Interest, Cultural Attraction, Cultural Person</td>
</tr>
<tr>
<td>Tradition/Festival</td>
<td>Timeline of tradition/festival in a year</td>
<td>Cultural Point of Interest</td>
</tr>
<tr>
<td>Biography</td>
<td>Timeline of life event of person</td>
<td>Cultural Person</td>
</tr>
<tr>
<td>Tradition</td>
<td>Related tradition</td>
<td>Belief</td>
</tr>
<tr>
<td>Belief</td>
<td>Related belief</td>
<td>Cultural Attraction, Tradition</td>
</tr>
<tr>
<td>Art style</td>
<td>List of Tangible Cultural Heritage that use this Art style</td>
<td>Tangible Cultural Heritage</td>
</tr>
<tr>
<td>Architecture Style</td>
<td>List of Cultural Heritage Building that uses this Architecture style</td>
<td>Cultural Heritage Building</td>
</tr>
<tr>
<td>Folk wisdoms</td>
<td>List of Cultural Heritage related to this Folk wisdoms</td>
<td>Cultural Heritage</td>
</tr>
<tr>
<td>Folk tale</td>
<td>List of this Cultural Heritage related to this Folk tale</td>
<td>Cultural Heritage</td>
</tr>
</tbody>
</table>
4. A design of information presentation

To present environment (trip plan), Fig. 6. The present example of viewpoint according to the dependent story of —History of Emerald Buddha.‖ The Cultural point of interest according to top rank stories are arranged. —Wat Phra Kaew and —Wat Arun Rachawaraml have linked by the dependent story of —History of Emerald Buddha.‖ When a visitor clicks the relation (—red dot line), details of the dependent story show according to the right part of Fig. 6. Each trip plan can have more than one dependent story, —Wat Phra Kaew and —Wat Borvornnivet viharal also have another dependent story (—blue dot line) that linked both of them together. For example, the ordination of King Rama IV story, King Rama IV have an ordain ceremonies at —Wat Phra Kaewl and move to stay at —Wat Borvornnivet viharal for the rest of his monk status. Also, Visitor can also traverse between the cultural point of interest and cultural attractions to access its information.

5. Conclusion and future work

In this paper, we present a design information service for cultural tourism. Values of cultural heritage are the social’s appreciation of it. Cultural aspects are used to projection the viewpoint of destination society. Dependent stories according to cultural aspects will act as a trigger to stimulate visitor’s interest. The Cultural point of interest according to dependent stories are arranged to create the support environment (trip plan) for cultural tourism activities. By this mechanism, the visitor can observe and learned from the viewpoint of destination society to adapt or extend their viewpoints. We
use Thailand cultural resources as a case study in this paper. However, the proposed services can be applied in any destinations. In future work, prototype system and the experiment with the real information will be conducted. This research can extend to support for another stage of cultural tourism (on-trip, post-trip), intelligent touring system, etc.

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References

Adapting service bundles to cultural tourist segments

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Abstract

Customer co-creation and experience design are new topics, particularly in the service industry. In view of a globally growing demand for journeys with several cultural experiences, the question of developing differentiated offers for domestic and international travelers is vital. This study demonstrates the manner in which layers and elements of the cultural tourist market should be structured so that service providers are empowered to adequately design and launch matching service bundles to different segments. This study is based on a sample of oral interviews with 350 leisure travelers in Chiangmai, Thailand, thereby replicating the cultural contact scale instrument that had been developed through a sample of international tourists in New Zealand. The segmentation approach considering the cultural contact scale and the main travel motivation revealed the following ideas. (1) Compared with the travelers in the New Zealand context, no traveler had a low level of cultural involvement during their trip to the northern area of Thailand. (2) Whether tourists are interested in the heritage of Lanna culture or in the living culture of minorities and hill tribe people makes a major difference. For destination marketing purposes, as mediators of the different cultural spheres, travel agencies and local suppliers should know the different preferences of different traveler segments to improve the service quality and experience design of their respective customers.

Keywords: cultural tourists, service operators, experience creation, segmentation

1. Background and study objective

Holiday tourism often means visiting other cultures and their places at leisure. Tourists achieve well-being through desired, targeted and serendipitous experiences within those cultures. However, how cultural tourism can be defined and delivered is undifferentiated, broad and disputed (McKercher & DuCros 2002). In international travel, cultural experiences are often initiated, facilitated and orchestrated by native tourism service providers in the transport, accommodation, hospitality and attraction sectors (Gnoth 2002; Bieger 1997). Services are therefore the key to tourists’ involvement with destinations, their people, culture, environment, and attractions. Providers’ interactions with tourists help determine the length of stay, money spent, and number of activities pursued. Their services become the more profitable for all involved, the more customized it can be delivered. Such targeted delivery requires us to segment the market based on a detailed understanding on how tourists experience their engagement with a visited culture.

That what initially attracts tourists is their own particular interpretation of the destination (Edelheim 2015), and their experience then depends on the ways their minds form a perspective on the destination. Experiences are formed through destination activities and how tourists engage with them (Appadurai 1996; Gnoth & Matteucci 2014). It is therefore incumbent on the service provider to understand this particular perspective the tourist brings to the destination and the service encounter. Rather than merely ‘staging’ events (Pine & Gilmore 1999), an understanding of how tourists’ minds engage with activities helps the provider create experiences in such a way that the tourist gains the maximum amount of pleasure and learning. It is noteworthy, however, that pleasure – or the
satisfaction of one’s senses, is but one part of holiday tourism. Satisfaction and well-being can be maximized by allowing tourists to gain new knowledge, skills and understanding. If service providers at destinations design and bundle their service experiences accordingly, they raise both competitiveness and productivity. The tourist’s involvement is therefore not merely a matter of active or passive, absorbing or immersive involvement as proposed by Pine and Gilmore (1999), but depends on how service providers manage the tourist’s willingness to adapt, learn, try out, experiment with, and assume values and views held by the visited culture.

Like for any other product category travel packages need careful design and segmentation of consumer preferences. Under the paradigm of service-dominant logic and customer co-creation even product managers for cars or furniture have to reconsider the entire chain of benefits emanating from targeted information delivery, flexibility for individualization of the tangible product components to interpretation of design aspects and consumer sub-cultures (e.g. car tuning opportunities, IKEA family).

What are the difficulties with cultural tourism offers and the management thereof?

- Culture poses as an emic framework for meaning creation (tourists’ own, native culture is not equivalent).
- Tourists’ culture when away from home (—tourist-culture is neither local nor tourists’ native culture).
- The others’/visited culture in general: culture is often difficult to define as it represents a world-view.
- How much are tourists willing to leave their own/emic world view?
- To which extent or depth is the visited culture asked to reveal itself to the tourist?
- Which service offers with which type of appeal (interaction, details) are appropriate?
- How can tourists be initiated and motivated to move deeper into the visited culture respectfully but enthusiastically?

To find adequate answers the following core research question is raised:

In which way different traveler segments with different levels of involvement, activities and motivations with respect to the host country’s culture(s) can be identified?

2. Method

Two studies using face-to-face interviews with international leisure travelers were conducted. The first study took place on the South Island of New Zealand in January and February 2009. Its main purpose was to estimate the potential and different preferences for indigenous (Maori) cultural tourism offerings to enable Maori tourism and cultural service providers to innovate and improve their supplies. The second survey tried to replicate the – slightly adapted – research instrument in a northern Thailand context (Chiang Mai) in February and March 2010. The New Zealand convenience sample comprises 285 oral interviews with tourists of more than 20 different nationalities, mainly conducted at various attraction points during their stay; the convenience sample from Thailand covered interviews with 350 leisure travelers from 10 different countries, conducted at the departure gates of the Chiang Mai airport. To achieve a better understanding of the shape of intended/realized cultural experiences, measures of specific travel motivations, attitudes towards cultural contacts and cultural activities have been developed, pre-tested and applied in both studies.

Despite the substantial differences between the role of Maori as part of New Zealand’s cultural identity and the minorities’ and inherited so-called Lanna culture in Thailand, equivalent measures in both samples were selected and applied to a common non-hierarchical segmentation approach. In total
24 segmentation variables were used: 10 items of the Cultural Contact Scale (Gnoth & Zins, 2013), two cultural motivations (national and minorities culture) and 12 cultural activities. A 7-segment solution turned out to be appropriate, meaningful and statistically optimal. The respective profiles and labels followed the two dimensional roster proposed by McKercher and DuCros (2002).

3. Results

By using motivational as well as involvement statements describing strength and mindset of cultural travelers we mainly followed the segmentation approach described by McKercher and DuCros (2002). The typology applied to the New Zealand sample is exhibited in Figure 1 revealing the essential approach for segmentation (Gnoth and Zins, 2013). The vertical axis represents the Cultural Contact Scale spanning a continuum of involvement into a destination’s culture(s). The horizontal axis considers the motivation that plays either a more focal or a more peripheral role for this particular journey. In this case, the Maori culture was the focus. Covering 2 segments, only 16% expressed a relatively high motivational background for this trip. Gnoth and Zins (2013, p. 743) reported that most of the cultural activities during the trip differed across these six segments.

In Thailand, the historic and cultural background differs radically from New Zealand. The roots of Thailand’s national identity go back to the Lanna period and culture, which is no longer an ethnically separable living culture. Yet, geographically and culturally, it is most probable to encounter inherited artefacts of Lanna culture such as architecture, music, dances and food in the Northern provinces such as Chiang Mai and Chiang Rai. Whereas the typical Lanna culture cannot be encountered all over Thailand, only tribes and people immigrating to Thailand in more recent history, and living particularly in the mountain regions bordering the northern neighboring countries are addressed as minorities. Consequently, the interest of cultural travelers is quite diverse with some interested more in the ‘original’ Thai or Lanna culture, and others more attracted to encounter hill tribe people and their living environments.

Following the segmentation approach applied to the more diverse international travelers to New Zealand in our Thailand sample, it is striking that among travelers to Chiang Mai nobody exhibits a low to medium motivation for culture. At the same time, the lowest level on the Cultural Contact Scale is also not represented in the Chiang Mai sample. Hence, the ongoing analysis concentrates on only two basic segments: a) the Sightseeing Cultural Tourist and b) the Purposeful Cultural Tourist (see Figure 1).

Hence, taking the different cultural themes (Lanna versus minorities/hill tribes like Akha, Hmong, Karen, Lahu or Lisu) into account Chiang Mai travelers show a varying combination of interest. The main travel motivation of experiencing the Thai culture in general is positively correlated with the interest in Lanna culture (Pearson rho = 0.4). In contrast, no correlation appears between interest in Thai and hill tribe culture. The association between Lanna and hill tribe culture is comparatively weak (rho = 0.15). Figure 2 takes the differences between Lanna and minorities’/hill tribe culture into account, which results in six different cultural segments within a range of medium to high involvement (see Figure 2).
### Cultural Traveller Segments in New Zealand (Gnoth & Zins 2013)

<table>
<thead>
<tr>
<th>Cultural Contact</th>
<th>Scale</th>
<th>Serendipitous Cultural Tourist 29%</th>
<th>Purposeful Cultural Tourist 8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Casually</td>
<td>Sightseeing Cultural Tourist 4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Incidental Cultural Tourist 35%</td>
<td>Spurious Cultural Tourist 4%</td>
</tr>
</tbody>
</table>

**Fig. 1. Cultural Traveller Segments in New Zealand. (Gnoth & Zins 2013)**

### The Casual Cultural Tourist

This is the largest group within the Chiang Mai sample of travellers exhibiting a medium involvement level and a low cultural motivation. These travellers are on average younger, travel more often alone and by airplane (within Thailand), are overrepresented among Germans and Koreans and to a larger proportion male. Their contact interests are above average when it comes to visiting Lanna craft shops and galleries, participating in Lanna carving and cooking classes. Their interest in learning (about history, stories and mythology or language) is much lower than on average.

### The Selective Sightseeing Tourist with Focus on Lanna

These cultural travellers are older, more often male, traveling mainly with partner and by rental car (within Thailand). Among this group, travellers from Korea and the UK are overrepresented. This segment accounts for 20% in the sample and shares a medium involvement level paired with a particular interest in Lanna culture but no or a much lower interest in the culture of minorities. They are highly interested in participating in Lanna wood carving and cooking classes, and in visiting Lanna craft shops. They are also interested in cognitive learning challenges about native plants and animals, about stories and the local mythology and about Thai language.

### The Selective Sightseeing Tourist with Focus on Minorities and Hill Tribes

This type is characterized by younger, male travellers arriving by airplane and staying in hostels or backpackers' accommodations. Among this segment Japanese, Chinese and Taiwanese travellers are overrepresented. Their particular interest is directed towards hill tribe cultures and insights into native plants and animals. This group has a smaller share of only 5% within the sample.

### The Directive Purposeful Tourist with Focus on Lanna

All the so-called purposeful travellers exhibit a very high level of involvement and exposure to the foreign culture, and is intertwined with a high motivation for Lanna culture. This group represents another 20% of the sample. Travellers are on average to a higher percentage female, older, traveling with a partner and largely by rental car. Their educational level is rather high, and they come largely...
from Japan and the USA. Their interest focuses more on learning and understanding historical background, and becoming familiar with stories and mythology.

The directive purposeful tourist with focus on Minorities and Hill tribes

This group covers about 10% in the sample. It is characterized by a younger average age, more females, travelling mostly alone or with friends, arriving by airplane (within Thailand) and staying in hostels. Particularly travellers from Taiwan and Singapore can be found within this cultural segment. Similar to their counterpart at a lower involvement level they are particularly interested in hill tribe culture and native plants and animals.

Purposeful cultural traveller

This group accounts for 11% in the sample with an above average share of female travellers, of travellers from Malaysia, Japan, Australia and the USA. They exhibit the highest educational level (with mostly university degrees), preferring to travel by rental car together with their partner. Rather than converging and adopting local values, the focus is on the intellectual (cognitive) understanding and exposure to _difference_, of both the Lanna and the hill tribe cultures. They do neither prefer staged presentations, nor activities such as carving or cooking classes or craft shops and galleries.

![Table showing cultural traveller segments](image)

Fig. 2. Cultural traveller segments of the Chiang Mai study.

4. Conclusions

This study sought to segment the Northern Thai tourism market using an adaptation of the Cultural Contact Scale (Gnoth and Zins 2013). Its particular feature is that it measures tourists’ desired experiential involvement conceptualizing both mindset and activities. The wish to get involved into some cultural insights and contact is everything else than at a low level among travelers to the Northern region of Thailand. Yet, the particular interest into specific aspects of inherited and/or living culture(s) makes a huge difference among different groups of travelers, which show distinct profiles across different countries of origin. By combining the _what_ of the activities and the _how_ of the mind’s involvement the segments offer service providers better opportunities to bundle services and target training and service delivery, as a more focused and didactic approach becomes possible. Didactics is the theory of teaching and learning, here it is the theory of how tourists can be engaged
according to their expectations and guided deeper into genuine cultural experiences (Moscardo 2014, Weiler & Walker 2014). These didactically intensified experiences produce even higher levels of satisfaction and well-being as they strengthen tourists’ autonomy, competence and relatedness (Ryan & Deci, 2001).

References


Conceptualizing and measuring the duality of customer switching behavior: can customer switching predisposition and resistance coexist?

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Abstract

Although customer defection has become a serious concern for the mobile telecommunications industry, academic research on this topic lacks comprehensive conceptualization and rigorous measurement of this concept. This study proposes a dual model of customer switching behavior to illustrate the coexistence of customer switching predisposition and resistance, and investigates the different effects on customer loyalty. The measurement scales of customer switching behavior demonstrated rigorous psychometric properties and exerted significant effects on customer loyalty. Therefore, this study offers a valid and reliable model of customer switching behavior for future empirical research and provides a useful tool for mobile service providers to obtain insights into the factors that trigger and inhibit service switching beyond (dis)satisfaction.

Keywords: customer switching behavior, customer loyalty, mobile services, measurement scales

* Corresponding author

1. Introduction

Recent years have witnessed an explosive growth in the demand for mobile services, in part owing to the rapid adoption of smartphones, the increasing popularity of mobile applications, and the unprecedented advancements in mobile communication technologies. The growing demand for mobile services has been accompanied by an increase in the mobile service providers (both traditional and virtual), which aims to grab bigger proceeds from this opportunity. This has resulted in intense price competition, aggressive promotional campaigns, and rampant switching behavior among mobile subscribers (Ranganathan, Seo, & Babad, 2006; Xu, Thong, & Venkatesh, 2014).

Increased competition and diminishing customer loyalty has propelled customer defection to the forefront of marketing concern (Han, Tyagi, Kim, & Choi, 2015). Managing customer defection is especially acute in the mobile services market as the global mobile customer defection rate has reached its highest ever level – 44 per cent at the end of 2011 (Telecompaper, 2012). Customer defection rate has also been found to rise constantly in the global mobile telecommunications industry with average customer lifetimes less than two years nowadays, half their level a decade ago (Kendall, 2012). When mobile telecommunications companies lose 2% to 4% of customers monthly, disloyal customers can amount to millions of lost revenue and profit (Aydin & Özer, 2005).

To effectively minimize customer defection, mobile service providers must devote themselves to more fully understand the factors affecting customer switching behavior. From an academic point of view, a comprehensive understanding of switching behavior requires not only an understanding of why customers are inclined to switch, but the reasons behind why they resist to switch (Colgate & Lang, 2001). However, the dual-faceted concept of customer switching behavior (predisposition and resistance to switch) is not well understood, and little is known about the factors that motivate and deter mobile subscribers from switching service providers. Thus, this study aims to fill this knowledge gap by proposing and operationalizing a dual model of customer switching behavior from two
opposing perspectives: customer switching predisposition (CSP) and customer switching resistance (CSR). In addition, this study also tests whether CSP and CSR can coexist in the minds of customers by examining their simultaneous effects on customer loyalty in the mobile services setting.

2. Literature review

2.1. Customer switching behavior

Customer switching behavior refers to the decision a customer makes to stop purchasing particular services or patronizing the service firm completely (Colgate & Hedge, 2001, p. 202). This definition, however, does not provide a complete portrayal of customer switching, since it focuses mainly on consumers’ predisposition to switch and ignore their resistance to switch. Zikiene and Bakanauskas (2009) claimed that customer switching behavior forms under the influence of factors that support the switching acts and those that undermine it. Consistent with this viewpoint, this study defines customer switching behavior as the decision process consumers engage in evaluating the incentives and disincentives to switch mobile service providers.

Although an increasing number of studies have strived to conceptualize customer switching behavior in the context of mobile services (e.g., Calvo-Porral & Lévy-Mangin, 2015; Ranganathan et al., 2006; Wirtz et al., 2014), very few studies have accounted for both switching predisposition and resistance attributes to better understand the complex nature of switching phenomenon. One notable exception is Chuang (2011) who put forward the concept of pull-and-suck to investigate the switching intentions of mobile subscribers by borrowing an idea from the push-pull-mooring (PPM) migration model (Bansal, Taylor, & James, 2005). Her study found that alternative attractiveness acts as a pull factor that encourages customers to switch to a new service provider. Conversely, satisfaction, switching costs, and habit strength act as suck factors that hold customers in relationships with their original service providers. Even though Chuang’s study has adopted a more holistic approach to conceptualize customer switching behavior, only a limited set of switching determinants are examined. Therefore, a more thorough examination of the factors that trigger and inhibit customer switching is needed.

Drawing upon Chuang’s (2011) pull-and-suck concept, this study assumes that customer switching behavior is driven mainly by two contrasting mechanisms: CSP and CSR. This study also seeks to provide a more in-depth understanding of CSP and CSR by identifying a set of key factors that contribute to the formation of these two distinct constructs.

2.2. Customer switching predisposition: The key constituents

CSP in this study refers to customers’ inclination to switch mobile service providers due to the motivation-based factors that favor the switching act (Goode & Harris, 2007; Lopez, Redondo, & Olivan, 2006). Based on the literature review, we identified four switching predisposition attributes, namely (1) competitors’ marketing innovation initiatives (CMII), (2) alternative attractiveness, (3) variety-seeking tendencies, and (4) consumers’ susceptibility to social reference group influence (CSSRGI). Since these four attributes are thought to cause the CSP, CSP is proposed as a reflective-formative type II model (Jarvis, MacKenzie, & Podsakoff, 2003) with the higher-order construct (i.e., CSP) is a common concept of four formative lower-order constructs (i.e., CMII, alternative attractiveness, variety-seeking tendencies, and CSSRGI).

Competitors’ marketing innovation initiatives (CMII). In the marketing discipline, innovation relates to radical changes adopted by a firm in any of the four Ps of marketing – product, price, promotion, and placement (distribution and supply chain) (Shergill & Nargundkar, 2005). In this study, CMII is
defined as —customers’ perceptions about the capability of alternative mobile service providers to engage in marketing innovation initiatives; that is, the introduction of new products, the use of new pricing strategies, and the adoption of new methods for promoting and selling the firm's products (Hult, Hurley, & Knight, 2004; OECD, 2005). Innovation is a competitive weapon that competitors use to attract customers away from the focal firm (Kunz, Schmitt, & Meyer, 2011). Perceived distinctiveness of competitors’ marketing mix strategies will not only decrease customers' preferences towards their existing service providers (Woodside & Wilson, 1994), but also erode brand loyalty by persuading customers to switch to a newer, less familiar brand (Shum, 2004).

**Alternative attractiveness.** The attractiveness of alternatives has been conceptualized as a customer’s perceptions of the possibility of obtaining more satisfactory service from an alternative service provider (Kuo, Chang, Cheng, & Lai, 2013). Greater perceptions of alternative attractiveness should increase the perceived benefits of switching service providers, resulting in higher switching intentions (Chuang, 2011; Jones, Mothersbaugh, & Beatty 2000; Kim, Ok, & Canter, 2010). This effect occurs because positive evaluation of alternative attractiveness can decrease a customer's satisfaction with the focal service (Ha & Park, 2013; Yen & Horng, 2010) and the decision to remain with the focal service provider (Jen, Tu, & Lu, 2011; Yim, Chan, & Hung, 2007). Therefore, alternative attractiveness, representing the extent to which the competing mobile service providers are perceived to be superior to those of the existing service providers on the basis of network quality, price, billing, and customer service, is considered to be an important constituent of CSP.

**Variety-seeking tendencies.** Variety-seeking tendencies is generally construed as a consumer’s propensity to switch away from a choice made on his/her previous purchase experience (Tuu & Olsen, 2013). This propensity is motivated by: intrapersonal factors (satiation and need for stimulation), external factors (price promotion, retail environment, new product introduction, size of household and seasonality), and uncertainty about future preferences (Kwun, Hwang, & Kim, 2013; Ratner, Kahn, & Kahneman, 1999). In the highly competitive marketplace, promotion is recognized as a potentially viable means for channeling variety-seeking habits (Trivedi & Morgan, 2003), and high variety seekers are more alert to competitors’ offerings (Jensen & Hansen, 2006). By engaging in variety-seeking behavior, consumers may obtain more satisfactory services from competing service providers (Ha & Jang, 2013). Hence, mobile subscribers may take advantage of competitors’ promotional offers and switch to competing service providers.

**Consumers’ susceptibility to social reference group influence (CSSRGI).** In this study, CSSRGI refers to —the willingness of an individual to conform to the expectations or suggestions of reference group members (e.g., family, friends, and colleagues) regarding switching decisions (Bearden, Netemeyer, & Teel, 1989). Reference group influence has been shown to play an important role in influencing the consumers’ decision-making process regarding product or brand choice (Senecal & Nantel, 2004), adoption decisions (Al-Debei & Al-Lozi, 2014), and purchase decisions (Shukla, 2011). In examining the determinants that cause mobile subscribers to transit from being loyal to switching, Lee and Murphy (2005) discovered that social pressure from reference group was one of the reasons that caused customers to change their mobile service providers. Thus, the assumption that a social reference group functions as a significant —facilitator that motivates mobile subscribers to change their service providers is logical.

### 2.3. Customer switching resistance: The key constituents

CSR in this study reflects —customers’ resistance to change mobile service providers due to the constraint-based factors that make switching more difficult and costly (Jones et al., 2000; N’Goala,
On the basis of the literature review, we identified four CSR attributes, namely (1) a focal firm’s marketing innovation initiatives (FFMII), (2) switching costs, (3) inertia, and (4) local network effects. Since these four attributes are thought to cause the construct of CSR, CSR is proposed as a reflective-formative type II model (Jarvis et al., 2003) with the higher-order construct (i.e., CSR) is a common concept of four formative lower-order constructs (i.e., FFMII, switching costs, inertia, and local network effects).

**Focal firm’s marketing innovation initiatives (FFMII).** According to the OECD’s Oslo Manual (2005, p. 49), marketing innovation is —the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing. In this study, FFMII is defined as —customers’ perceptions about the capability of a focal service provider to engage in marketing innovation initiatives; that is, the introduction of new products, the use of new pricing strategies, and the adoption of new methods for promoting and selling the firm’s products (Hult et al., 2004; OECD, 2005). Successful innovation enables firms to attain a competitive advantage that will lead to greater market performance (e.g., excellent quality, customer satisfaction) and ultimately to better financial performance (e.g., profit, market share) (Naidoo, 2010; Shergill & Nargundkar, 2005). Empirical evidence also exists that marketing mix activities by a focal service provider could reduce the likelihood of switching among mobile subscribers (Wirtz et al., 2014). Therefore, it is reasonable to assume that higher perceptions of FFMM could act as an exit barrier that will lead to lesser customer propensity to switch.

**Switching costs.** Switching costs refer to —the onetime cost that customers associate with the process of switching from one provider to another (Burnham, Frels, & Mahajan, 2003, p. 110). They represent the sacrifices or penalties consumers feel they may incur in changing the present provider (Jones, Reynolds, Mothersbaugh, & Beatty, 2007). Switching costs include not only those that can be measured in monetary terms but also the nonmonetary expenses such as time, effort and psychological costs associated with searching for a new provider (Lam, Shankar, Erramilli, & Murthy, 2004). Therefore, high switching costs could create a —lock-in phenomenon that makes it difficult and costly for mobile subscribers to switch to another alternative (Park, Park, & Lee, 2014).

**Inertia.** Inertia has been conceptualized as —a non-conscious form of retention, consisting of passive service patronage without true brand loyalty and unwillingness to expend effort (Yanamandram & White, 2010, p. 571). Previous studies found that inertia exists in the choice of frequent continuous purchasing of home food (Arnade, Gopinath, & Pick, 2008), insurance services (Lai, Liu, & Lin, 2011), banking/financial services (Yanamandram & White, 2010), and telecommunication services (Lee & Neale, 2012). In such settings, consumers often make repeat (habitual) purchases on the basis of familiarity and without considerable thought (Stewart, 1998). Empirical findings from Chuang (2011) and D’Alessandro, Gray, and Carter, (2012) have offered robust evidence in this respect – demonstrating that inertia could produce a behavioral lock-in effect and therefore restrain mobile subscribers from switching service providers.

**Local network effects.** As mobile communication networks are required to interconnect with each other, many mobile service providers try to induce local network effects by implementing pricing schemes that discriminate against inter-network calls (so-called off-net calls) (Fu, 2004). Termination-based price discrimination occurs when a mobile service provider fixes the tariffs for calls and SMSes that terminate on a rival’s network (off-net prices) at higher rate than terminating on its own network (on-net prices) (Corrocher & Zirulia, 2009). Another source of local network effects is the special tariffs for calls or SMSes between —family and friends’ on the same network (Karaçuka, Çatık, & Haucap, 2013). Typically, the benefits stemming from the presence of local network effects is purely
pecuniary (Corrocher & Zirulia, 2009). In the present study, local network effects refer to the case in which an individual benefits from the fact that a large number of his/her social subset (e.g., family, friends, and colleagues) uses the same mobile service providers because they can enjoy cheaper on-net calls and SMSes (Birke & Swann, 2010). Malhotra and Malhotra (2013) and Cheng and Liu (2007) both found that local network effects could reduce customers’ propensity to switch mobile service providers in the United States and China, respectively. Since local network effects lock mobile subscribers to their incumbent service providers, it can be a potential source of CSR.

3. Research methodology

3.1. Measurement scales

All research constructs were operationalized and measured using well-established multiple-item scales adapted from previous studies, making only minor changes of wording to suit them to the target context. Items for CMII and FFMII were adapted from Banff (2006); items for alternative attractiveness were adapted from Wu (2011); items for variety-seeking tendencies were adapted from Baumgartner and Steenkamp (1996) and Steenkamp and Baumgartner (1995); items for CSSRGI were adapted from Fielding, McDonald, and Louis (2008), Tarus and Rabbach (2013), and Wangenheim and Bayon (2004); items for switching costs were adapted from Aydin and Özer (2005) and Burnham et al. (2003); items for inertia were adapted from Wu (2011) and Yanamandram and White (2010); items for local network effects were adapted from Malhotra and Malhotra (2013) and Wang, Lo, and Fang (2008); and items for customer loyalty were adapted from Aydin and Özer (2005). To alleviate the common method biases, we used different scale endpoints for the predictor and criterion variables (Podsakoff et al., 2003). While key constituents of CSP and CSR were rated on a 5-point scale, the items for customer loyalty were rated on a 7-point scale.

3.2. Data collection and sample profile

A survey was administered to Generation Y (18-34 years old) (Bruwer, Saliba, & Miller, 2011) who subscribed to the post-paid mobile plans in Malaysia. Although Generation Y represents a substantial consumer base for mobile services (Kumar & Lim, 2008), they nevertheless are more unpredictable and less brand loyal than their predecessors (i.e., Generation X and baby boomers) (Kim & Kandampully, 2012). Thus, understanding the factors that influence the switching behavior of this fickle yet important customer segment is critical. A total of 417 usable questionnaires were collected. Out of a sample of 417, 50.8% were female, 61.2% were between the ages of 25 and 34, and 70.2% had earned a bachelor’s degree or higher. Almost half of the respondents were professionals, managers, executives or businesspersons (48.2%), and 43.6% earned an annual household income of MYR36,000 (USD 8,139.46) or above.

4. Data analysis and results

The data were analyzed using the Partial Least Square Structural Equation Modeling (PLS-SEM) through the SmartPLS 2.0 software (Ringle, Wende, & Will, 2005). Unlike covariance-based SEM analysis which requires items/indicators used to measure a latent construct to be reflective in nature, PLS can handle both reflective and formative constructs (Urbach & Ahlemann, 2010). In the current study, CSP and CSR are conceptualized as formative second-order constructs that consist of four reflective first-order dimensions, respectively (see Fig. 1). Using the guideline proposed by Becker,
Klein, and Wetzels (2012), the data analysis was performed on two levels: the first-order constructs level and second-order construct level.

At first-order construct level, the parameter estimates being assessed include convergent validity, discriminant validity, and composite reliability. The items loading of all constructs had surpassed the minimum required cut-off value of 0.40 (ranging from 0.685 to 0.984) (Hair, Hult, Ringle, & Sarstedt, 2013) and the AVEs of all constructs were well above the 0.50 threshold (ranging from 0.571 to 0.849) (Fornell & Lacker, 1981), signifying a sufficient level of convergent validity. In examining the discriminant validity, we employed the Fornell-Larcker criterion (Fornell & Larcker, 1981), whereby the square root of the AVE for each construct was greater than its highest correlation with any other constructs. Discriminant validity was supported as the square root of the AVE for each construct was greater than the recommended level of 0.708 (ranging from 0.864 to 0.944) (Hair et al., 2013), providing strong support for construct reliability.

At the second-order construct level, the parameter estimates of indicator weights, significant of weights, multicollinearity of indicators, nomological validity, and predictive relevance ($Q^2$) were evaluated. The results showed that variety-seeking tendencies was the most salient contributor to the CSP index (weight = 0.477, $t = 15.798$, $p < 0.001$), followed by alternative attractiveness (weight = 0.402, $t = 20.806$, $p < 0.001$), CMII (weight = 0.334, $t = 12.407$, $p < 0.001$), and CSSRGI (weight = 0.204, $t = 7.190$, $p < 0.001$). On the other hand, switching costs appeared to be the most significant contributor to the CSR index (weight = 0.523, $t = 15.220$, $p < 0.001$), followed by FFMII (weight = 0.324, $t = 14.187$, $p < 0.001$), inertia (weight = 0.306, $t = 16.646$, $p < 0.001$), and local network effects (weight = 0.282, $t = 8.087$, $p < 0.001$). Next we proceed to examine the level of multicollinearity among the key constituents of CSP and CSR via variance inflation factor (VIF). The results revealed minimal collinearity among the first-order constructs of CSP (ranging from 1.093 to 1.602) and CSR (ranging from 1.093 to 1.357), well below the common cut-off threshold of 5 (Hair et al., 2013). It can then be concluded that the four key constituents of CSP and CSR are independent from one another, each of which distinctively contributes to the formation of the CSP and CSP constructs, respectively. The nomological validity of the instruments was evident as both CSP and CSR were significantly related to customer loyalty in the hypothesized ways. While CSP had a negative impact on customer loyalty ($\beta = -0.348, t = 9.427, p < 0.001$), CSR had a positive impact on customer loyalty ($\beta = 0.536, t = 15.982, p < 0.001$). CSP and CSR collectively explained 61.9% of the variance in customer loyalty. Furthermore, the $Q^2$ value of greater than zero (0.453) indicated that the model had adequate predictive relevance. Fig. 1 graphically depicts the results of structural relationships assessment.
5. Discussion, implications, and conclusion

Service switching is a complex phenomenon as customers have to go through a cognitive process (the so-called switching dilemma) that requires them to think deliberately whether they should stay with or leave a service provider (Colgate & Lang, 2001; D’Alessandro et al., 2012). In addressing the complex nature of service switching, this study conceptualized customer switching behavior as dual-faceted constructs comprising CSP and CSR attributes. Specifically, this study has estimated second-order reflective-formative type II models of CSP and CSR using the repeated indicator approach. From a
methodology point of view, the advancement of second-order reflective-formative models of CSP and CSR using PLS provides new insights for variance based SEM. More importantly, the measurement scales of CSP and CSR demonstrated rigorous psychometric properties and exerted significant effects on customer loyalty. Thus, the dual model of customer switching behavior developed in this study can be used with confidence to gain useful insight into relationship with other important constructs of interest (e.g., customer commitment and equity).

From a theoretical perspective, the dual model of customer switching behavior developed in this study provides a solid foundation for building future knowledge of CSP and CSR attributes, particularly in the context of mobile services. While the relationship between some service switching attributes (e.g., alternative attractiveness, variety-seeking tendencies, switching costs, and inertia) and customer loyalty have been previously investigated (see e.g., Jones et al., 2000; Kim, Park, & Jeong, 2004; Shirin & Puth, 2011, Wu, 2011), this study demonstrated that CMII, CSSRGI, FFMII, and local network effects, which have been largely ignored in the service switching literature, can also influence the loyalty of mobile subscribers. This study thus advances current understanding of customer switching behavior by explicating CSP and CSR from a more nuanced perspective and linking these to the customer loyalty framework. While CSP was found to influence customer loyalty negatively, CSR was found to influence customer loyalty positively. Therefore, this study contributes to consumer behavior literature by demonstrating the coexistence of CSP and CSR in the minds of mobile subscribers and illustrating how these two contrasting mechanisms simultaneously, yet differentially, influence the loyalty of mobile subscribers.

From a practical perspective, the development and validation of a dual model provides a useful tool to mobile service providers to collect insights into the factors that prompt and inhibit customer switching that go beyond (dis)satisfaction with the services received. Prior studies have shown that satisfaction does not always result in loyalty, and that dissatisfaction does not necessarily result in switching (Jung & Yoon, 2012; Wu, 2011). More importantly, investigations of motivation- and constraint-based mechanisms of service switching contribute to a better understanding of how to manage customer defection effectively. The findings suggest that in order to curtail customer defection, mobile service providers should manage both CSP and CSR attributes simultaneously. That being said, while attempting to increase the level of CSR, mobile service providers should also monitor the level of CSP and take initiatives to alleviate it. Furthermore, they need to cognizant of the relative importance of CSP and CSR attributes in the minds of mobile subscribers while allocating their limited company resources to develop more effective customer retention strategies.

And finally, we believe that the dual model proposed in this study is not necessarily limited to the mobile services but largely applicable to other information technology (IT) products or services that are characterized by technological innovation, high market competition with multiple alternatives, and exhibit local network effects or externalities (e.g., smart devices and computer software).

References


Kim, M., & Kandampully, J. (2012). The service imperative in the retailing industry. In J. Kandampully (Eds.), *Service Management* (pp. 7-24). New York: Springer.


Influence of service quality on customer satisfaction, brand trust and word of mouth in a private hospital

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Abstract

As providers of healthcare services, hospitals face the challenge of gaining customer loyalty. Healthcare is a high-involvement and high-risk service. Therefore, brand trust could play an important role in influencing customer loyalty and word of mouth. This research aimed to determine the effects of service quality on customer satisfaction, brand trust, and word of mouth in a private hospital. Previous studies have focused on the effects of service quality on repurchase intention with mediation of brand trust and word of mouth in e-commerce setting. Delgado-Ballester and Munuera-Aleman confirmed the importance of brand trust in generating customer commitment in high involvement product. However, confirming the importance of brand trust in health-care service is necessary. Data were collected using a scale with closed-ended questions. The number of items used is 33, among which, 20 items were for the dimensions of service quality, 4 items each for customer satisfaction and brand trust, and 5 items for word of mouth. The dimensions of service quality are reliability, assurance, tangibility, empathy, and responsiveness. The scale was pre-tested for validity and reliability on 30 respondents. Questionnaires were distributed to 215 respondents who have had in-patient care in a private hospital in Jakarta, St. Carolus Hospital. Respondents were chosen because they would have more intensive interaction with the service provider and facility during their treatment. As for the hospital, St. Carolus was chosen because, unlike other hospitals, this hospital is accepted by a broader spectrum of customers in Jakarta. Both lower and higher income customers come to this hospital. The sampling technique used is stratified random sampling method. Data are analyzed by using Structural Equation Modeling with LISREL 8.80. More female respondents were noted (56.7%). Most of the respondents were employees (42.3%) and housewives (24.2%) and came from three age groups, namely, above 50, 36 to 50, and 26 to 35 years old (84.6%). The results showed that service quality affected customer satisfaction and brand trust. Customer satisfaction influenced brand trust, but not word of mouth. Finally, brand trust has an effect on word of mouth.

Keywords: service quality, word of mouth, brand trust, health care

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1. Introduction

Hospitals face some challenges in developing the loyalty of customers. When using healthcare services, patients are highly involved since health is something vital to their life. As an implication, patients are meticulous and highly demanding in quality of health services they receive. Further, even though patients want to find hospitals in which they can trust or be loyal to, their demand for hospital services is a negative demand – i.e., they usually go to the hospital only when they are sick, not because they want to. In this respect, hospitals need to develop services oriented toward other dimensions of healthcare, such as prevention of disease. Hospitals also face the challenge of getting patients or customers to talk positively about them, as it can contribute significantly to the amount of patients willing to use their services.
Good service quality can result in customer satisfaction. Satisfaction felt on an ongoing basis can establish the brand trust of a service provider. Brand trust arises because of the commitment generated among the patients who had been satisfied with services provided by a service provider. Strong brand trust will also be expected to generate positive word of mouth to the community to attract potential patients. Positive word of mouth is one of the free promotional tools which will save the cost of communication or promotion. Word of mouth is very important for a hospital because good and satisfactory service will increase the level of confidence for the prospective patients to the hospital. This study aims to find out the influence of service quality on positive word of mouth with customer satisfaction and brand trust as mediating variables in St. Carolus Hospital. Specifically, this study intends to clarify the importance of brand trust in influencing word of mouth.

2. Literature review

The study of literature will proceed based on the variables examined. The sub topics discussed are service quality, customer satisfaction, brand trust, word of mouth, and relationship between variables.

Service quality

Service quality is the customer evaluation of the superiority or performance of a service. It is not an objective type of evaluation, but rather a subjective evaluation, or an evaluation as perceived by each customer (Llosa et al., 1998). Service quality is the most debated and researched topic in service marketing literature (Brady and Cronin, 2001), as it encompasses a vast aspects of service performance in fulfilling customer needs and expectations.

Zeithaml et al. (2011) formulate the assessment of service quality into five dimensions, as follows:

1. Reliability
Reliability is defined as the ability to deliver promised services accurately and convincingly. Companies must be able to fulfill their promises as to what characteristics of services which will be provided to consumers because consumers want a company that can deliver on its promises.

2. Responsiveness
Responsiveness is defined as the willingness to help and to provide services quickly (responsively) and properly to consumers. Ensuring consumers stay informed, for example, how long consumers have to wait, willing to answer any customers' question, and readiness in responding to consumers' demand.

3. Assurance
Employees must have the knowledge and ability to serve customers in order to gain confidence among consumers of the service company.

4. Empathy
Empathy is defined as to give individual attention to each customer by showing concern for the needs or desires of consumers. Each customer is unique and different, they have different needs. Indeed, the company should provide a personal attention to each individual according to their needs.

5. Tangibles
Tangibles include all physical facilities, equipment, employees, and communication materials that support the service. Attractive physical facilities, modern equipment and neatly dressed employees describe how the quality of these services is.
Customer satisfaction

Customer satisfaction is defined as —the extent to which product’s perceived performance matches a buyer’s expectations (Kotler dan Amstrong, 2010: p.37). If the perceived performance exceeds the expectation, it will arise a positive feeling, whereas if the perceived performance falls below the expectation, it will induce a negative feeling. These situations have been labeled as positive disconfirmation and negative disconfirmation, respectively (McCollough et al., 2000).

Brand trust

Brand trust is defined as the —willingness of average consumer to rely on the brand to perform its stated functionl (Chauduri and Holbrook, 2001). Brand trust is seen as an important factor in marketing because of its influence on brand extension acceptance, brand equity, customer loyalty, and in developing relationship marketing (Reast, 2005). Brand trust has an impact on keeping current customers, as well as gaining new customers (Sichtmann, 2007).

There are two dimensions of trust (Delgado-Ballester & Munuera-Aleman, 2001), namely:

a. Reliability
This dimension characterized by technical aspect, which in brand trust include the perception that the brand can meet or satisfy the needs of consumers, the brand is able to fulfill the promise in product operation. In this dimension there is an ability to predict that the brand consistently satisfy the needs of consumers in a positive way.

b. Intention
This dimension reflects a sense of security that makes people feel there is a guarantee that the brand will be responsible and pay attention to consumers despite the changing situation and environment of product consumption. Confidence in these traits lead to the belief that what happens in the future will be resolved by the brand correctly. Thus, this dimension also explains that the brand does not take advantage of the weakness of the consumer.

Word of mouth

Word of mouth (WOM) refers to interpersonal influence through communication, let’s say, from person A to B, whereby B’s attitude can be altered, either positively or negatively (Sweeney et al., 2007). Customers trust their fellow customers better than the firm (Zeithaml and Bitner, 1996), therefore WOM is highly effective. WOM is more important in services which are mainly experience or credence based. In experiential service, a potential customer can not judge the quality of a service before experiencing the consumption process. In credence service, even a customer has consumed the service; he/ she still find it difficult to judge the quality. Therefore, the opinion of others is important in these services (Kinard and Capella, 2006).

The influence of WOM applies both ways. Positive WOM from a customer encourages others to make a purchase, while negative WOM induces others to avoid making a purchase (Ennew et al., 2000). On the other way, a customer suggesting a purchase is more likely to be converted into a loyal customer himself/ herself (Gremler and Brown, 1996). Wangenheim (2005) argues that WOM influences the existing customer through reducing cognitive dissonance. Moreover, the behavior of giving recommendation could resonate positively into one’s own product or brand belief.
Relationship between variables

As a central subject of study in service marketing literature, service quality can influence many variables as perceived by customers. Different studies have indicated that service quality influences customer satisfaction (Chaniotakis & Lymeropoulos, 2008; Sa’adah et al., 2011) and brand trust (Sa’adah et al., 2011).

Customer satisfaction can have an impact on brand trust as when customers feel that their expectation has been met repeatedly, they will develop a sense of safety or assurance in using a brand. The study by Kassim and Abdullah (2010) indicates that customer satisfaction has an impact on trust in e-commerce setting. On the other hand, Tax, Brown & Chandrashekar (1998) found that satisfaction with complaint handling has an impact on trust.

The impact of customer satisfaction on customer loyalty can manifest in two ways (see Kassim and Abdullah, 2010). The first is behaviorally in becoming a loyal customer (customer retention). The second is in an emotional way by providing positive word of mouth to other potential customers. When a customer feels delighted by the performance of the service provider, they can develop an urge to spread positive recommendation to others.

Some experts suggest that trust can become a better predictor of customer loyalty (including positive word of mouth) rather than customer satisfaction (Hart & Johnson, 1999; Morgan & Hunt, 1994). Trust is a much deeper rooted feeling than satisfaction (Kassim and Abdullah, 2010). In the healthcare context, the importance of trust is even more essential (Kemp et al., 2014). Kemp et al. (2014) has confirmed the influence of brand trust on brand advocacy. Other study by Sichtmann (2007) also confirmed the influence of brand trust on WOM among consumers, but not for non consumers of a service.

Along with the direct relationship between the variables, we also propose an indirect impact of service quality on positive word of mouth through the mediation of customer satisfaction and brand trust. (See the research model below).

The hypotheses tested are as follows:

H1 : There is an influence of Service Quality on Customer Satisfaction in St. Carolus Hospital.
H2 : There is an influence of Service Quality on Brand Trust in St. Carolus Hospital.
H3 : There is an influence of Customer Satisfaction on Brand Trust in St. Carolus Hospital.
H4 : There is an influence of Customer Satisfaction on Positive Word of Mouth in St. Carolus Hospital.
H5 : There is an influence of Brand Trust on Positive Word of Mouth in St. Carolus Hospital.
H6 : There is an influence of Service Quality on Positive Word of Mouth in St. Carolus Hospital.
H7 : There is an influence of Service Quality on Positive Word of Mouth through Customer Satisfaction and Brand Trust in St. Carolus Hospital.
3. Methodology

The schedule of this research began from 27 April 2014 to 30 May 2014. The survey was conducted in in-patient rooms of St. Carolus hospital, Jakarta. The population in this study was all the people who were doing in-patient treatment in St. Carolus hospital. The sampling method used is probability sampling. The sampling technique used is stratified random sampling. Stratified random sampling is the technique which takes sample with regard to strata (levels) in the population. A questionnaire for the variables of service quality, customer satisfaction, trust, and positive word of mouth with 33 items was developed. The authors administrate 215 questionnaires to respondents. The analysis used is structural equation modeling with LISREL 8.8.

4. Result

Before the data is processed and analyzed, the validity test was carried out using confirmatory factor analysis. Validity test is done by evaluating the value of standard loading factor for each indicator or dimension. According Wijanto (2008) SIMPLIS have validity in the form of standardized loading factor $> 0.50$. After a validity test is taken out, all 33 indicators are valid.

After that, the construct reliability test was carried out, which according Bagozzi & Yi (in Ghozali and Fuad, 2005), the cut-off level for composite reliability is 0.6. The result shows that all the dimensions and variables in this study have good reliability because their construct reliability values $> 0.6$.

After the validity and reliability were done, then we test the fitness of the model or the goodness of fit to examine the fitness of the model. Here are the results of the goodness of fit test:
Table 1 show that the model in this study has a good level of fitness, so that the model is feasible for further analysis. Because the research model has been fit, the structural test was done to see whether each of the variables in this study has the effect on other variables. This structural test can be seen structural equation below:

Structural Equation 1
\[
CS = 0.89 \times \text{SERVQUAL}
\]
\[\text{t} = 3.11\]

The structural equation above shows that the coefficient of the direct influence of Service Quality (SERVQUAL) on Customer Satisfaction is 0.89 with a standard error of 0.061, t value = 3.11. The t value which is greater than the t-table shows that there is a direct effect of Service Quality (SERVQUAL) on Customer Satisfaction, so the hypothesis 1 which reads "There is an influence of Service Quality on Customer Satisfaction" is accepted.

Structural Equation 2
\[
BT = 0.40 \times CS + 0.45 \times \text{SERVQUAL}
\]
\[\text{t} = 3.98\]

The structural equation above shows that the coefficient of the direct influence of Service Quality (SERVQUAL) on Brand Trust is 0.45 with a standard error of 0.11, t value = 3.98. The t value which is greater than the t-table shows that there is a direct effect of Service Quality (SERVQUAL) on Brand Trust, so the hypothesis 2 which reads "There is an influence of Service Quality on Brand Trust" is accepted.

The structural equation above also shows that the coefficient of the direct influence of Customer Satisfaction on Brand Trust is 0.40 with a standard error of 0.11, t value = 3.61. The t value which is greater than the t-table shows that there is a direct effect of Customer Satisfaction on Brand Trust, so the hypothesis 3 which reads "There is an influence of Customer Satisfaction on Brand Trust" is accepted.

Structural Equation 3
\[
WOM = 0.13 \times CS + 0.41 \times BT + 0.36 \times \text{SERVQUAL}
\]
\[\text{t} = 3.11\]
The structural equation above shows that the coefficient of the direct influence of Customer Satisfaction on Positive Word of Mouth is 0.13 with a standard error of 0.11, t value = 1.19. The t value which is smaller than the t-table shows that there is no direct effect of Customer Satisfaction on Positive Word of Mouth, so the hypothesis 4 which reads "There is an influence of Customer Satisfaction on Positive Word of Mouth" is rejected.

The structural equation above also shows that the coefficient of the direct influence of Brand Trust on Positive Word of Mouth is 0.41 with a standard error of 0.084, t value = 4.86. The t value which is greater than the t-table shows that there is a direct effect of Brand Trust on Positive Word of Mouth, so the hypothesis 5 which reads "There is an influence of Brand Trust on Positive Word of Mouth" is accepted.

The structural equation above also shows that the coefficient of the direct influence of Service Quality on Positive Word of Mouth is 0.36 with a standard error of 0.12, t value = 3.11. The t value which is greater than the t-table shows that there is a direct effect of Service Quality on Positive Word of Mouth, so the hypothesis 6 which reads "There is an influence of Service Quality on Positive Word of Mouth" is accepted.

Indirect Effect

\begin{align*}
\text{SERVQUAL} \\
\text{--------} \\
\text{WOM 0.44} \\
\text{(0.11)} \\
\text{4.17}
\end{align*}

The result above indicate that the coefficient of the indirect influence of Service Quality on Positive Word of Mouth through Customer Satisfaction and Brand Trust is 0.44 with a standard error of 0.11, t value = 4.17. The t value which is greater than the t-table shows that there is an influence of Service Quality (SERVQUAL) on Positive Word of Mouth through Customer Satisfaction (CS) and Brand Trust (BT), so the hypothesis 7 which reads "There is an influence of Service Quality on Positive Word of Mouth through Customer Satisfaction and Brand Trust hospital in St. Carolus" is accepted.

5. Discussion

Based on the results of model fit assessment, there are seven indicators of fit measure (x^2 / df, SRMR, NFI, NNFI, CFI, and CAIC). Of 7 indicators there are two indicators that have met the criteria of acceptable fit, which are x^2 / df and SRMR. Four other indicators are categorized as good fit, which are NI, NNFI, CFI, and CAIC, while RMSEA fall into the category of mediocre fit. These results suggest that the overall model has a good fit.

The research by Sa'adah, Rohman, and Rofiaty (2011) concludes that (1) service quality has an influence on consumer satisfaction (2) service quality has an influence on consumer trust (3) satisfaction has an influence on consumer trust (4) satisfaction does not have influence on word of mouth (5) The trust does not have an influence on word of mouth and (6) service quality has an influence on word of mouth. The result above is in accordance with the results obtained in the current research, except for hypothesis 5. The research of Kassim and Abdullah (2010) also confirm the current research that trust has an effect on WOM.

Summary of the whole test of hypothesis is presented in table 2 below.
Table 2. Summary of Hypothesis Testing.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Standardized Estimation</th>
<th>T-value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: There is an influence of Service Quality on Customer Satisfaction in St. Carolus Hospital.</td>
<td>0.89</td>
<td>14.54</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: There is an influence of Service Quality on Brand Trust in St. Carolus Hospital.</td>
<td>0.45</td>
<td>3.98</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3: There is an influence of Customer Satisfaction on Brand Trust in St. Carolus Hospital.</td>
<td>0.40</td>
<td>3.61</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4: There is an influence of Customer Satisfaction on Positive Word of Mouth in St. Carolus Hospital.</td>
<td>0.13</td>
<td>1.19</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5: There is an influence of Brand Trust on Positive Word of Mouth in St. Carolus Hospital.</td>
<td>0.41</td>
<td>4.86</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6: There is an influence of Service Quality on Positive Word of Mouth in St. Carolus Hospital.</td>
<td>0.36</td>
<td>3.11</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7: There is an influence of Service Quality on Positive Word of Mouth through Customer Satisfaction and Brand Trust in St. Carolus Hospital.</td>
<td>0.89</td>
<td>14.54</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

6. Conclusion

In conclusion, we found that the influence of service quality on positive word of mouth is mediated by customer satisfaction and brand trust. Since, there is no direct influence on customer satisfaction on WOM, the effect of customer satisfaction can only be channeled to WOM through brand trust. The research confirms the importance of brand trust in generating customer commitment – which in this case manifested in positive WOM – in high involvement product or service.

References


Role of sustainable transport for creating integrated public transit system
(case studies of Jakarta, Indonesia, and Freiburg, Germany)

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Abstract

Creating sustainable transport has become an important tool in maintaining environmental and societal sustainability by co-creating value with customers/citizens. Sustainable development is defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable transport development is necessary to modify transport policy of cities. Transport policy has direct and indirect effects on customers or public transit users. Developing a sustainable transport policy requires strategic decisions. Understanding the role of transport policy in creating integrated public transit services should take full advantage of exploring the co-creation of values sustainably for customers in emerging economies. This study intends to assess and analyze sustainable and innovative public transport services policies to create an Integrated System (IS). The objective is to look deeper into how cities with varied capabilities integrate public transit system to co-create value for their customers and other stakeholders. The paper assesses two cities with different development and challenges. First, Jakarta is facing major challenges in creating integrating sustainable transport policy, whereas Freiburg is a city with a successful integrated sustainable transport policy. The aim is to determine whether Jakarta could learn from Freiburg’s successful implementation of sustainable transport policy.

The paper applies qualitative exploratory research approach and illustrates the theoretical framework with the cases of Jakarta and Freiburg sustainable transport policies for building an integrated system. The focus is on describing the challenges of understanding sustainability in the service system towards co-creating value. Data were obtained through an online survey with 42 respondents who have had experiences with TransJakarta or are Jakarta citizens.

The paper contributes to the ongoing discussion in service research relating to developing service-oriented transport policy based on the understanding of the role of sustainable public transit. The authors explored three main groups of policies that could be used to mitigate negative environmental effects of public transport, which are transport technology, supply, and demand. The results of improving transport policies to create sustainable public transit are (1) implementing transport technology, (2) adding transport supply proportionally, and (3) reducing transport demand. The new transport policy takes an important role as well as an instrument to (1) reduce environmental effects, (2) increase service level, and (3) increase sustainable transport management. Based on the results of the study, respondents demand crafting a sustainable transport policy that should be integrated to the Implementation of Transport Technology in Jakarta. Thus, this research contributes to the government of Jakarta by assisting in improving its transport policy to create sustainable transport development in public transit system and derives important lessons from Freiburg that could be applied to Jakarta.

Keywords: sustainable transport, integrated transport, transport policy, value co-creation
1. Introduction

Creating sustainable transport becomes an important in maintaining both social and environment perspectives of a cities. We use the sustainable development approach to explain and describe sustainable public transport. World Commission on Environment and Development (1987) describes sustainable development as meeting the needs of the present without sacrificing the needs of the future generation. Thus, integrating transport policy to create sustainability becomes an important perspective. Sustainability encompasses wide area of study and requires multiple approaches to be implemented. Therefore, transport policy should have direct impact on customers/travellers too (Stead and Banister, 2001). Co-creation is a strategy that brings together the customer and the service provider to mutually create value (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2008). Walters (2007) argued that public transport was used as an —instrument— of transport policy to provide mobility at reduced costs (subsidized services) to affected communities. Transport non-policies (for instance: land-use planning, energy taxation, ICT application) also have important influence in mobility. Stead and Banister (2001) suggested that land-use planning is becoming increasingly recognized as an important _non-transport_ policy capable of influencing mobility. In other words, the role of sustainable transport is of improving services too with a provision of mobility, which is safe, integrated, orderly, smooth, comfortable, economical, efficient, effective and affordable by the community (Gebaur et al., 2010). The policy could focus on creating a flexible and rapid transit mode that combines stations, vehicles, services, running way, and Intelligent Transportation System (ITS) into an integrated system. In general, Sustainable Public transit as the goal of sustainable transportation is also to ensure that environment; social and economic considerations are factored into decisions affecting transportation activity (MOST, 1999).

Public transit services take sustainable challenges for integrating environmental —Eco-Efficiency—and social sustainability with inclusion of all stakeholders, to provide better service, and efficiency. The society and humanity stands for big challenges regarding climate and environmental crisis. Friedman (2008) argues that we do not regulate us out of the environmental crisis, we only innovate us out of it. A touchstone for sustainable innovation is not been a burden on bottom lines (Nidumolu et.al, 2009). A sustainable way of thinking is also important to create a value network by engaging local stakeholders (Hart, 2007). As an urban area and capital city of Indonesia, Jakarta is facing crucial problem about transportation. The numbers losses will increase gradually as the traffic jams that are getting worse in Jakarta. Based on data from Land Transport Authority of DKI Jakarta in 2010, total number of private vehicle is 7.25 million units (98.8 %) and total number of public transport is just only 89.270 unit (1.2 %). In the environmental issues, Jakarta is the third polluted city in the world after Mexico and Thailand (Antara, 2009). The biggest influence comes from transportation sector which is contributing 70% pollution. Hence, providing sustainable public transport can contribute to reducing pollution. In this study, we argue that there are some missing links towards achieving efficiency and effectiveness in creating integrated and sustainable transport policy among actors in Jakarta’s public transport development.

The other important focus of this study is on the term of efficiency and effectiveness. Efficiency and effectiveness are one of the successful public transit parameters. In creating sustainable and integrated public transit system, the efficiency is more closed with understanding of environmental thinking. As Sebhatu et al (2011) mentioned to provide a better service and efficiency; public transport must take account of sustainable thinking based on environmental, eco-efficiency and social sustainability and involve all stakeholders. And the term effectiveness is more related to cost-effectiveness. All mobile activities in public transport that encompass ticketing system, punctuality, safety, comfortable, and affordable are related with cost. The author argues that to reinvent cost-effectiveness in transport
policy, contractual governance takes important role. In this sense, contracting can also be discussed to understand the mutual agreement and understanding between different parties. Contracting is largely connected with the securing of resources, thus acquiring a capacity focus (Ramirez and Wallin, 2000).

Strategic thinking about providing sustainable public transit is very important in urban area, like Jakarta, because that have huge influences in mobility. Gebauer et al., (2010) mentioned that the role of sustainable public transit systems is to develop services and provide mobility that is comfortable, economical, integrated, orderly, efficient, safe, smooth, affordable and effective by the community. To fulfill the goals of sustainable public transit, this research put the role of innovation. Sebhatu et al (2011) argued that innovations should aim to reinvent the way value is created. Hence, restore the truly function of public transport is attempting to provide sustainability as well. The author also wants to compare the successful history about developing sustainable transport in Freiburg. Learning from Freiburg’s experience would be a good lesson to develop and implement in creating sustainable transport policy. The aim of this research would press to how the government of Jakarta improves its new transport policy to create sustainable and integrated public transit, particularly TransJakarta as the first BRT system in Jakarta.

2. Research methodology

The paper applies qualitative exploratory research approach. This is done by analyzing the theories to develop the case studies. The qualitative research tends to be associated with words or images as the unit of analysis. Qualitative research use to make description of data (Denscombe, 2007). In general, this thesis based on literature reviews and comparative studies by supporting primary data from different sources of questionnaire, observation and published and un-published documents about creating sustainable transport policy to achieve effectiveness and efficient way. Primary and secondary data are collected and analyzed based on the comparative study. The comparison of Jakarta sustainable transport development is based on Freiburg’s sustainable public transit approach. The two cases have significant difference in terms of development, history and geography. However, the level of success in Freiburg can be a good way to assess the strategy and transport policy of Jakarta to assess it long term achievement. The research in Freiburg consist of how Freiburg can develop transport policies become sustain and integrated. What is the factor to determine sustainable transport policy that has been passed in reducing environmental impact? And how Freiburg initiates the first concept in creating sustainability? The result of data analysis, findings and comparison studies would be analyzed to sustainable and integrated transport policy development in Jakarta, particularly Trans Jakarta as the first BRT system.

The primary data of this research is about sustainable strategy of transport policy in Jakarta and Freiburg which be obtained from survey with questioners and interview. Survey with questioners was conducted to measure which one is the most accepted transport policy for supporting sustainability in Jakarta. Total respondent of survey with questioners is 42 people for who have experiences of TransJakarta or Jakarta’s citizen; they have high level of education, and their occupation as civil servant at transport department or ministry of transportation. The respondents are: (1) Civil servant at Ministry of Transportation Indonesia; (2) Civil servant at Transport Department of Jakarta; (3) Lecture; (4) Student of Master Degree or Doctoral Degree. With the optional option are: (1) Very Agree; (2) Agree; (3) Moderate; (4) Disagree; (5) Very disagree. For the interview, it has been done with the one of source who work in Jakarta’s Department of Transportation who knows about Master Plan of Jakarta’s Transport Policy. And the secondary data is literature review and document research about supporting data that obtained from library, e-library and internet investigating related to is
supporting transport policy, for instance: non-transport policy (land-use, ITC, etc) related with creating sustainability, the growth of traffic vehicle, service level performance of public transport, etc.

3. Analysis result and discussion

3.1. The Result of improving new transport policies to create sustainable public transit

1. Implementing Transport Technology
   • By using technology properly, emission from motor vehicles can be controlled well
   • Technology can be categorized a transport policy which has direct impact related to transportation, or it can be categorized as non-transport policy
   • In environmental issues, technology can be used as a tools to reduce and —mitigate environmental impacts (Greene & Wegener, 1997).

2. Adding Transport Supply Proportionally
   • Adding transport supply is not only about construct transport infrastructures. But increasing service levels is also become the important key to create sustainable public transport.
   • By complexity of services, the government or PTA (Public Transport Authority) can innovate to provide the new way of services to the passengers (customers), because innovation is essential for sustainable achievement (Nidumolu et al., 2009).

3. Reducing Transport Demand
   • Transport demand management become the important thing to manage demand properly
   • Travel demand management is not only concern for reducing mobility, but also promoting to use public transport
   • Creating good travel demand management cannot be imposed for the government as transport authority, but also engaging all stakeholders for providing sustainable public transit.

3.2. The discussion of the role of new transport policy in developing sustainable and integrated public transport

• Transport Policy as an Instrument to Reduce Environmental Impact
   Integrating sustainable transport policies would reduce environmental impact whether for the present or for the future generation. The author argues that it can be achieved with developing of technology in all sectors in transportation. By using technology effectively, the travelers or passengers still can achieve the efficiency and effectiveness of public transport without compromising the ability of future generations to meet their own needs (Greene & Wegener, 1997), that’s we called it as sustainability.

• Transport Policy as an Instrument to Increase Service Level
   Providing better services is not only from the producer (operator) to the customer (passenger), but also customer can be as co-created service value. Vargo and Lusch (2008) mentioned that value is co-created through such resource integration. Passengers (costumers) would have awareness to be co-creator of services if they satisfied with the services that have been given to them. Passengers would make new network from one community to other community to promote the using of public transport by their own initiatives. As operator (authority), it can be easier to operate public transport sustainably and it doesn’t need any hard enforcement to promote the using of public transport all of the time. It’s automatically work by its own way. Hence, this can be reached if government of Jakarta has made passengers (customers) satisfied with its services.
• Transport Policy as an Instrument to Create Sustainable Transport Management

Transport supply and demand management would detect how many mobility that generating by passengers. It was included land-use planning policy, e-commerce policy, and the other non-transport policy that influencing mobility. Hence, Greene & Wegener (1997) mentioned that transport demand management tries to intercept this vicious cycle by policies to reduce the need for travel. And only recently the potential of transport supply management for controlling the growth in mobility has been recognized. Balancing between transport supply and demand management would be critical key to create sustainability in transportation. To visualize the result above, we can see Fig. 1. below.

Implementing Instrument to Reduce Environmental Impact
- e-commerce
- Intelligent Transport System (ITS)
- Information Communication Technology (ICT)
- Electronic Road Pricing (ERP)
- Service Innovation
- Public transport

Adding Transport Supply Proportionally
- Minimum Service Standard (MSS)
- S-DL and Value Co-Creation
- Infrastructure
- Service Innovation
- Public Transport (MRT, LRT and BRT)
- Intelligent Parking System
- Expanding Bicycle and Pedestrian

Reducing Transport Demand
- Balancing of Travel Supply and Demand
- Car use restriction
- Organization Management
- Service Management
- Land-use Planning
- Public transport

Fig. 1. Scenario of Improving New Transport Policy to Create Sustainable Public Transport.

3.3. Comparison summary of sustainable transport development in Freiburg and Jakarta

To compare both public transit systems the historical background would be an important understanding to fit them in sustainable transport development. Freiburg's success has depended to some extent on special circumstances. For instance, Freiburg had started to establish a —global transport concept! since 1969, which stated that the transport infrastructure should be friendly to the people as well as to the environment. In 1960, the streetcar (tram) network instead was removed without providing appropriate buses or other public modes to service the passengers. The author argues that Jakarta was very late to start the strategy of sustainable transport by establishment the first BRT system in 2004. The growth of private vehicle cannot be accommodated by providing BRT system only. But also other transport policies should be integrated to create sustainability.

In the comparison of the sustainable transport development in Freiburg and Jakarta, the author used the findings previous study about Seven Lessons for Implementing Sustainable Transport Policies (Buehler & Pucher, 2011). Those Freiburg's lessons are used to measure how far Jakarta have implemented sustainable new transport policy (see Table 1.).
Table 1. Comparison Summary of Sustainable Transport Development in Freiburg and Jakarta.

<table>
<thead>
<tr>
<th>No.</th>
<th>Transport Policy Comparison</th>
<th>Freiburg</th>
<th>Jakarta</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Policies in stages</td>
<td>Implement controversial policies in stages</td>
<td>Depends on governor leadership period</td>
</tr>
<tr>
<td>2.</td>
<td>Characteristic of transport planning</td>
<td>Flexible and adaptable over time to changing conditions</td>
<td>Difficult to adapt and there is a chance to be tricked</td>
</tr>
<tr>
<td>3.</td>
<td>Quality and level of transport services</td>
<td>Multi-modal and include both incentives and disincentives</td>
<td>Partial-modal and include incentives and disincentives depend on political attraction</td>
</tr>
<tr>
<td>4.</td>
<td>Transport policy integration</td>
<td>Fully integrate transport and land-use planning</td>
<td>Unintegrated due to complex land-use planning</td>
</tr>
<tr>
<td>5.</td>
<td>Citizen engagement</td>
<td>Citizen involvement must be an integral part of policy development and implementation</td>
<td>Citizen involvement doesn’t massive, just only intellectual community</td>
</tr>
<tr>
<td>6.</td>
<td>National government support</td>
<td>Support from higher levels of government is crucial to making local policies work</td>
<td>Political background takes an important role to address local policies work</td>
</tr>
<tr>
<td>7.</td>
<td>Interval of transport policy</td>
<td>Long term sustainable transport policies, with policies sustained over time and reducing for lasting impact</td>
<td>After 2004, Jakarta has been on the right path to create sustainable transport policies</td>
</tr>
</tbody>
</table>

From the hypothesis testing result by spreading questioners for the respondents, the author measures the number of most supporting sustainable transport policy which asked for respondents. The parameter to measure the number of most supporting sustainable transport policy is respondents who answer with VERY AGREE. The result can be seen at the Fig. 2.

At the Fig. 2. above, the result shows that The Policy to Implemented Transport Technology in Jakarta is the most readily accepted by respondents with the percentage is 69% VERY AGREE. It means the Jakarta’s citizen support on creating sustainable transport policy by implementation of transport technology in Jakarta.

4. Conclusion

The paper assesses how sustainable and innovative public transport services policies can create and co-create an Integrated System (IS). The value co-creation process in these two cities with varied capabilities integrates the public transit system buy co-create value for customers and other stakeholders. In this study, we concluded that there are three key approaches to develop new transport policy in creating sustainable and integrated public transit. The first key is about implementing transport technology, including development of public transport, implementation of ICT (Information Communicating Technology), applying Electronic Road Pricing (ERP) and promoting e-commerce as a tool to reducing environmental impact and mobility. Second key is adding transport supply proportionally, which means that not only construct new transport infrastructure, but also increasing service level of public transport performance. Applying Minimum Service Standard (MSS) in public transport is one of the important requirements to raise service level.
Third key is reducing transport demand. The high traffic congestion forces Jakarta to reduce (minimize) mobility in order to declining environmental impact and more safe. Public transport is one of a tool to reduce private vehicle mobility.

Indeed, new transport policy has an important role to create sustainability in transport field. First, transport policy takes a role as an instrument to reduce environmental impact, particularly by implementing transport technology properly. Second, transport policy takes a role as an instrument to increase service level. Not only constructing new transport infrastructures. Third role of transport policy is an instrument to create sustainable transport management. Balancing transport supply and demand is important to make traffic stable. Land-use planning, organization management are one of the critical key to reduce mobility by creating sustainable transport management.

Based on the comparison of the successful story in Freiburg about developing sustainable transport policy, these are the results that author identified. The main problem in Jakarta about creating sustainable transport policy is the lack of effective policy implementation, mainly due to strong political attraction to achieve the ambitious policy objectives; complex land-use and inter-modal negotiation process; lack of car and motorcycle use restriction policy; lack of increasing service level in BRT system including lack of the buses service, punctuality of bus service and integrating multi-modal from BRT; lack of awareness about environmental maintenance, mainly from transport sector; the complex political and policy relationship between provincial government and parliament; lack of integrated transport policy with the nearest outside area from Jakarta; lack of citizen engagement to develop and implement sustainable transport policy; lack of sustainable (everlasting) transport policy for the present and future generation; and significant migrations from other city to Jakarta make Jakarta is getting crowded over time. And from measurement about the hypothesis of scenario of improving new transport to create sustainable public transport with the spreading of questionnaires, the result shows that The Policy to Implemented Transport Technology in Jakarta is the most readily accepted by respondents with the percentage is 69% VERY AGREE.

5. Managerial and social implications

For the recommendation to the government of Jakarta, the author argues (1) that very important for having awareness about creating and applying sustainable transport, not only for the citizen but also for the high level in the government of Jakarta; (2) creating accessible bureaucracy which make easy to process and execute sustainable transport policy; (3) equitable distribution of economic well-being on all levels of society; (4) eliminate ambitious of some political attraction that will give some advantages for them (corruption). Based on the above discussion, for the contribution from this study, the author argues that government of Jakarta as a main authority should be concern to create sustainable transport policy.

Reducing high traffic congestion is important, but to make sustainability is also more important.It will contribute not only for the present but also for the future generation. For the future research, the author suggests that the important discussion is about sustainable and integrating all public transport policy, particularly integrated system with railway in Jakarta. TransJakarta as a BRT system is also important to develop sustainable and integrated LRT (light rail transit) to figure out traffic problem in Jakarta. Therefore, the author stresses to the next research is about creating sustainable and integrated railway transport policy.
References


Conceptual framework for implementing virtual and value co-creation service roadmapping for Thailand R&D firm

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Abstract

Aging is a global issue and quality of life of the elderly has been an important topic of research. Research and development (R&D) firms and their strategic alliances that work on technology and innovation could contribute to the development of new products and service innovation to the elderly and their society by co-creating value among multi-stakeholders with future-oriented perspectives. Regarding future orientation, the roadmapping technique is a powerful practical method that could help multi-stakeholders, including governments, investors, social entrepreneurs, the elderly, and other innovation networks, to address future issues with their knowledge and skills. Roadmapping supports the exploration and communication of how R&D could offer and exchange the value to/with society and service systems in the near future. The roadmapping process, in general, has S (Strategic)-Plan and T (Technology & Product)-Plan for manufacturing at firm level. Concerning service orientation, service-dominant (S-D) logic is an approach for enhancing strategic, abductive, and value creation processes of the firm. The proposition of value and provision of service are intermediary to the value co-creation process and could shape their future technology-service perspective. Therefore, technological strategic planning and service concept need to be consolidated. Roadmapping process for service sector planning is initiated as a —service roadmap. This process is an integrated technological service-planning tool that focuses on the design of service system and emphasizes macro-level planning for a certain future period. Currently, face-to-face workshop represents the primary mechanism whereby multi-stakeholders and experts are brought together to capture, share, and structure knowledge relating to the strategic issues faced by a firm. However, virtual arrangements and real-time online tools to support the physical workshop are being explored as a mechanism to enhance participation and value co-creation from multi-stakeholders.

This study proposes the conceptual framework of value co-creation service roadmap that encapsulates S-D logic, open service innovation, online tools, and social media applications in the aspect of value co-creation, resource integration, and network collaboration. The analysis and design of V (Virtual and Value co-creation)-Plan roadmapping process with S-D logic approach, online tools, and social media applications are employed to support strategic planning for service orientation.

V-Plan roadmapping approach is proposed by 1) investigating contemporary virtual collaboration, 2) identifying important characteristics for conducting virtual arrangement, 3) categorizing social media applications, and 4) identifying distinct characteristics of each roadmapping stage. Therefore, the stage of service roadmap implementation and the process of V-Plan are explained. V-Plan (virtual and face-to-face) is combined with workshop-based methods. Firms could then use this method as strategic planning to increase multi-stakeholder engagement. V-Plan facilitates the convergence of strategy, service, product, technology, and value co-creation into service roadmap. This study contributes a novel mechanism to the workshop-based approach by V-Plan, which resolves the limitations of participation in terms of space and time and increases the engagement of multi-stakeholders. We illustrate the applicability of conceptual framework by examining a case example with a Thailand governmental R&D firm on Assistive Technology for the elderly. The case elaborates
on how this framework deploys the V-Plan approach and exchanges co-created value among multi-stakeholders.

This concept integrates service roadmap process into the business processes of firm and strengthens open collaboration among multi-stakeholders. This process could potentially support the advancement of social, economic, and technological effects on services for Thailand’s aging society.

**Keywords:** assistive technology, open service innovation, service-dominant logic, service roadmap, service roadmap implementation, elderly, value co-creation, virtual, V-Plan

*Corresponding author*

1. **Introduction**

The importance of linking efficiently the outputs of service orientation and technological strategic planning has become evident. Concerning service orientation, S-D logic is an approach for enhancing strategy, abduction and value creation process of the firm. The proposition of value and provision of service are intermediary to the value co-creation process [27]. S-D logic has the potential to provide increased firm viability into what multi-stakeholders can collaborate to open and shape their future’s technology-service perspective. The technological strategic planning and service concept are needed to consolidate; roadmapping process for service sector planning is initiated as ‘service roadmap’ [8]. It is an integrated technological service planning tool, focusing on the design of service system and emphasizing macro-level planning for a certain future period.

Previous research has shown that the recommended mode of engagement for deploying strategic technology management (STM) toolkit should be through workshops [6]. Workshops represent the primary mechanism whereby the stakeholders and experts are brought together to capture, share and structure knowledge relating to the strategic issues facing in a firm. However, virtual arrangements and real-time online tools to support a physical workshop are being explored as a mechanism which enhances the participation and value co-creation from stakeholders. On the other hand, the approach to adopt the value co-creation from stakeholders’ perspective [16] and the investigation of different facilitation approaches in the stage of roadmap development [31] should be considered.

In this paper, V (Virtual and Value co-creation)-Plan roadmapping process, S-D logic approach, online tools and social media applications are employed to support the strategic planning. The research objectives are included in theoretical and practical aspects. Value co-creation service roadmap is employed in this study to analyze services, products, technologies and resources with open innovation and S-D logic approach. The blended (virtual and face to face) roadmapping process is deployed to workshop-based roadmapping.

The key research questions are

1. What is the effective potential approach to promote value co-creation service roadmapping? ;
2. How virtual arrangement and online tools enhance the communication and collaboration among stakeholders in roadmapping process? ; and
3. What applications of social media can be involved in roadmapping process as collaborative tools?

This paper proposed a conceptual framework for implementing virtual and value co-creation service roadmapping which consists of 1) the stage of service roadmap implementation and 2) the stage of V-Plan roadmapping process. V-Plan can be another approach for roadmapping process to resolves the
limitation of the participation among stakeholders in term of space and time. The application of V-Plan may need to concern on the selection of online and social media tools are challenged to make it fit with stakeholders’ ICT literacy.

This study is organized as follows. First, in the section ‘literature review’ reviews the relevant studies and in the section ‘proposed approach’ explains our overall research design. The suggested conceptual framework for implementing value co-creation service roadmap is then proposed. The final section concludes the paper by discussing the limitations of our study and its implications for further research.

2. Literature review

2.1 Technology roadmapping and technology roadmap for product-service integration

A technology roadmap is adapted to internal corporate R&D initiatives and industry-wide R&D collaboration at the regional, national, and global levels. Technology roadmapping is gaining momentum as a strategic management tool for a firm to integrate technology into business strategy [31] and changing business requirements [13]. Roadmapping is a powerful practical method that can help scientists and engineers to determine which technologies will use in the future so that they can contribute to solving the problem in society [29]. Roadmapping supports them to explore and communicate how their research can offer value. There are two principal variants of the roadmapping workshop approaches [1]:

- S-Plan focuses on general strategic challenges, typically at business, corporate, sector and policy levels.
- T-Plan focuses on product-technology roadmapping, bringing together a medium sized group of cross-functional stakeholders in workshops to explore and plan a product-based innovation.


For the strategic planning in service sectors, technology roadmap can be a valuable tool to support strategic planning by integrating various planning elements such as product, service and technologies. Fig. 1 [7] shows basic formats of service roadmaps.

<table>
<thead>
<tr>
<th>Layers</th>
<th>Time</th>
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<tbody>
<tr>
<td>Market/User Needs</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Service</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Product</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Technology</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Fig. 1. the basic formats of service roadmaps.


2.2 Service roadmapping and Service-dominant logic

Cho and Lee [8] defined technology roadmap developed for service sector planning as 'service roadmaps' to distinguish them from technology roadmaps in the manufacturing sectors. As the service roadmap inherits the concept of technology roadmaps, it can be useful as a forecasting tool, a decision-making tool, and a communication and coordination tool. They suggested five types of service roadmap architectures which are 1) product-based service roadmap, 2) market-driven service roadmap, 3) service-technology roadmap, 4) technology-based service roadmap, and 5) product-service integrated roadmap. The structure of service roadmap varies by their purpose and with firm characteristics. For type 5) product-service integrated roadmap are primarily developed for planning mostly in the product-service organization: it uses expert opinion as the only input and has been applied to ICT human health and social work industries. Ateetanan and Shirahada [24] proposed a seamless value co-creation service roadmap, which consists of seven layers: market/user needs, service, product, technology, R&D, knowledge and partners as Fig. 2.

The first characteristic of the seamless value co-creation service roadmap is the encapsulation of S-D logic concept into a service layer, so the roadmap employs the value co-creation between service providers and service receivers. The roadmap can be realized by the addition of the service layer.

The second characteristic is the use the 'partner layer' as the originality of collaboration among stakeholder and represents integrator of resources.

Roadmapping in service sectors can be challenging and by integrating of S-D logic and open innovation approach in term of value co-creation and resources integrator.

<table>
<thead>
<tr>
<th>Current</th>
<th>Future</th>
<th>Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market/ user needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service (Value Co-creation between providers and receivers)</td>
<td>Encapsulated S-D logic</td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partners</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 2. Architecture of proposed value co-creation service roadmap.

2.3 Virtual collaborations, virtual meetings, and social media in online collaboration platforms

Collaboration is a process by which individuals and/or teams work together on a practical effort. Collaboration work is a fundamental feature of firms and is increasingly being supported by technology [11]. ICT (Information and Communication Technology) has enabled collaboration to take
place on a virtual or electronic dimension, regardless of time and space (location). The integration of specialized ICT capabilities to support collaborative work for planning and executing its business process [19] is required for the firm. In the education sector, the interest on how firms organize and coordinate their work in the virtual collaborative group has increased in recent years[26].

The virtual meeting is applied, team members role-played companies collaborating on a design problem while supported by a range of ICT Tools [3] either in asynchronous mode includes email, instant messaging, discussion forum or synchronous mode include real-time chatting, group interactive sessions through audio- video- and web-conferencing. Virtual meetings should be seen as a subset of and a driver for virtual collaboration, if supplemented with other virtual collaboration tools, will eventually lead to fundamental changes in work processes, organizational structure and the ways in which internal and external collaboration is performed [20]. Virtual meetings could be used to decrease the environmental impact of business activities, reduce travel costs, increase business mobility and collaboration, and improve flexibility and productivity of the employees.

A challenge for value co-creation in networked platforms (online communities, social networks, networks of practice, etc.) is the organization of the collaboration between different actors/stakeholders. Collaboration platforms [18] differ in term of users or purpose, but they all share a number of common characteristics in creation and aggregation of knowledge.

2.4 Social media and value co-creation in collaborative projects and multi-stakeholder system

Social media applications can enable the joint and simultaneous creation of knowledge-related content by many stakeholders through collaborative projects [4]. In service concept, social media platforms can explicate the granular dynamics of resource integration in value co-creation processes between firms and customers. The role of social media platforms [28] as systems resource integrators is to provide a technological platform that exposes its modular resources to facilitate higher order resource formations through the active participation of multi-stakeholders or customers and firms.

2.5 Literature gap

Most research in the development of technology roadmaps and service roadmaps have been focused on the face to face workshop-based. From previous studies, there are empirical obstacles [6],[16],[31], in roadmapping process either in manufacturing or service firms which are

1) the limitation of the participation of stakeholders in term of space and time
2) the promotion of engagement of stakeholders and
3) the shortening of the duration of roadmapping process

There have been some attempts, demanding and discussing on

1) the virtual arrangement and real-time online tools [6] to support the physical workshop are being explored as mechanisms to facilitating the roadmapping process,
2) the approach to adopt the value co-creation from stakeholders’ perspective [16] into roadmapping process and
3) the investigation of different facilitation approaches [31] of roadmap development stage.

This paper presents a development route of virtual and value co-creation service roadmapping process. The literature gaps and resulting research objectives are summarized in Table 1:
Table 1. literature gaps and resulting research objectives.

<table>
<thead>
<tr>
<th>Literature Gap</th>
<th>Research questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The method to embed service concept into roadmapping for strategic planning.</td>
<td>1. What is the effective approach to promote value co-creation service roadmapping?</td>
</tr>
<tr>
<td>2. The mechanism which allows participation from stakeholders in roadmapping workshop-based principle and overcomes the limitation of time and space.</td>
<td>2. How virtual arrangement and online tools to enhance the communication and collaboration among stakeholders in roadmapping process?</td>
</tr>
<tr>
<td>3. The method to apply social media application as enhanced tools to roadmapping</td>
<td>3. How social media applications involve in roadmapping process as collaborative tools?</td>
</tr>
</tbody>
</table>

3. Proposed approach  

3.1 Overall process

We elaborated a methodology from both theoretical and practical perspectives. We analyzed papers devoted to the technology roadmap for product-service integration and open innovation, service roadmap, e-Collaboration and social media for online value co-creation as mentioned in the section of literature review and papers concerning.

This section describes the overall process of proposed approach in three main phases: 1) Phase 1: Stages of service roadmapping implementation, 2) Phase 2: Processes of service roadmapping, and 3) Phase 3: Tools in roadmapping.

To answer the research questions as mentioned in the previous section, this study first investigates the contemporary of e-Collaboration and social media applications. To answer the first research question, we conducted a literature review to identify the important characteristics for conducting virtual arrangement: based on which we propose ‘blended workshop’ as a mechanism for roadmapping process. To answer the second research question, we suggest a categorization of types of social media applications that can be selectively used in practice, and describe the distinctive characteristics of each stage of roadmapping process, and corresponding implications. We increase the validity of proposed approach by incorporating member check with multi-disciplinary experts in respective of their expertise. The stakeholders’ behavior is monitoring throughout the roadmapping process and stakeholder co-creation analysis is conducted by using 1) stakeholder co-created value matrix 2) descriptive value web and 3) stakeholder satisfaction survey.

Finally, the study suggests V-(Virtual and Value co-creation)-Plan roadmapping process to be the approach to promote value co-creation service roadmapping.

3.2 Stages of service roadmapping implementation

Service roadmap (SRM) inherits the concept of technology roadmap; it can be useful as a forecasting tool, a decision-making tool, a communication and coordination tool [8]. A service roadmap is an integrated technological service planning tool, focusing on the design of service system and emphasizing planning for a certain future period [24]. We proposed to classify the general approach for service roadmapping implementation in a firm into three stages; Preparation, Development, and Action as shown in Fig. 3. This approach is based on PDCA (Plan, Do, Check, Act) - the concept of process improvement methodology.
3.2.1 Stage 1: Preparation stage

This stage aims to get a firm ready and have a common understanding before starting to implement service roadmapping process. During discussion the team will identify which —issue‖ would be used for construct the service roadmap. Some of the issues are presented using questions. These questions are answered by the team members using research and any information available. Table 2 shows the issues, techniques, and outputs from preparation stage.

<table>
<thead>
<tr>
<th>Stage of Analysis</th>
<th>Issues</th>
<th>Techniques</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation stage</td>
<td>1. What should we do?</td>
<td>Key stakeholders interview/brainstorm</td>
<td>• Common goals</td>
</tr>
<tr>
<td></td>
<td>2. How should we do it?</td>
<td></td>
<td>• Scope</td>
</tr>
<tr>
<td></td>
<td>3. Where are we now?</td>
<td></td>
<td>• Roadmap architecture</td>
</tr>
<tr>
<td></td>
<td>4. Where do we want to go?</td>
<td></td>
<td>• Cross-functional team</td>
</tr>
<tr>
<td></td>
<td>5. Why do we need to act?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Named and describe the expertise of the team’s members.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.2 Stage 2: Development stage (Processes of service roadmapping)

This stage aims to bring the participation from stakeholders, develop a roadmap by engaging stakeholders through virtual and face to face roadmapping workshops, conduct a step-by-step analysis and observe the behavior of stakeholders throughout the service roadmapping process. This study focuses on „Virtual and value co-creation‘ workshop techniques and uses interactive workshops through blended workshop – virtual and face to face meeting – to bring together a multi-disciplinary group of stakeholders to capture and discuss perspectives, focus and explore opportunities, make directions and consensus actions and to develop the first-cut service roadmap.

The V (Virtual and Value co-creation)-plan approach has been developed by the enhancement of „T-Plan‘ method for product-technology roadmapping [1, 22, 23], the „S-Plan‘ approach for strategy and policy application [1], technology roadmapping for product-service integration [33], and strategic planning using service roadmap [8].

The V-Plan approach focuses on integrated product-service-technology strategic planning. The process brings together 6-12 participants from a cross-functional team to develop a first-cut roadmap for a service family in blended workshop-based:
1) Market: Identification of market and business drivers
   External market and internal business drivers are identified, categorized, and prioritized for market segments.

2) Value proposition: Identification of value proposition from stakeholders [9, 17]
   The value proposition offered to the customer and the value which customer expect to receive.

3) Service: Generation of service solution concepts
   Potential service solutions, functions, and attributes are identified and prioritized with respect to how strongly they address the drivers.

4) Product: Generation of product feature concepts
   Potential product features, functions, and attributes are identified and prioritized with respect to how strongly they address the services.

5) Technology: Identification of technology capability options
   Potential technological solutions for developing the product features are identified and prioritized.

6) Resources: Identification of knowledge and partners
   Necessary R&D, Knowledge and potential partners for collaborating the basic and apply R&D is identified.

7) Charting: Linking of milestones, service, product, technology, and partners
   Based on the outputs from the six workshops, the first-cut roadmap is developed, linking market, service, product, technology, and resources; the decision is made and actions agreed.

The second stage, _Development stage_ or _Roadmapping stage_ is based on the workshop approach. To facilitate the analysis of the seven roadmapping stages as shown in Fig. 4 which are needed to create the service roadmap.

---

Fig. 4. The stage of roadmapping process.
The stages are divided into ‘topics’ and more specifics ‘issues’, ‘techniques’ as shown in Table 3.

Table 3. Stage of analysis and issues for roadmapping process.

<table>
<thead>
<tr>
<th>Stage of Analysis</th>
<th>Issues/Procedures</th>
<th>Techniques</th>
<th>Outputs</th>
</tr>
</thead>
</table>
| 1. Market         | Identify & prioritise market segments | • Brainstorm  
                      | 1. Identify & prioritise market segments | • Business strategy  
                      | 2. Prioritise market drivers | • market drivers  
                      | 3. Prioritise business drivers | |
|                   | 4. Focus on most important market segments and competitors | • Focus group | |
|                   | 5. What are the competitors’ strengths and weaknesses? | |
|                   | 6. What are the strategic implications for the business, products, and technologies? | |
| 2. Value proposition | The possible customer segments  
                       | 1. The possible customer segments | • Descriptive and Prescriptive value web  
                       | 2. Empathy map | [15]  
                       | 3. What are offered to the receiver/client? (Firm’s will) | • Value Proposition Canvas [30]  
                       | 4. What is the receiver/client expecting to receive? (Firm’s vision) | |
|                   | 5. Formulate the value proposal | | |
| 3. Service        | Brainstorm service features concepts | Linking grid  
                       | 1. Brainstorm service features concepts (Market-Service) | • Service strategy  
                       | 2. Grouping | • Service solutions  
                       | 3. Impact ranking | • Attribute of services |
| 4. Product        | Brainstorm product features concepts  
                       | 1. Brainstorm product features concepts (Service-Product) | • Product strategy  
                       | 2. Grouping | • Product features  
                       | 3. Impact ranking | • Attribute of products |
| 5. Technology     | For each product feature in turn,  
                       | 1. For each product feature in turn, | • Technology trends  
                       | 2. Brainstorm possible technology solutions | • Technology features  
                       | 3. Group solutions into technology areas / routes | |
| 6. R&D, Knowledge, Partner | Identify key resources (skills, competences, alliances, knowledge, capital investment) | • Resource gap analysis [2]  
                       | 1. Identify key resources (skills, competences, alliances, knowledge, capital investment) | • Linking grid  
                       | 2. Chart preferred technology solutions | • Key R&D areas  
                       | 3. Chart other resources | • Target partners for Open innovation/collaboration |
| 7. Charting       | Define focus and format of route map | Charting | The first-cut service roadmap  
                       | 1. Define focus and format of route map | |
|                   | 2. Chart market milestones | | |
|                   | 3. Chart evolution of product features | | |
|                   | 4. Chart preferred technology solutions | | |
|                   | 5. Chart other resources | | |
|                   | 6. Draw linkage between levels | | |

3.2.3 Stage 3: Action stage

This stage aims to chart and integrate service roadmapping process into an ongoing business planning activities and make it alive in business as usual.

3.3 Tools in roadmapping

The first six workshops are virtual workshops and the last workshop is in the face to face workshop. Table 4 shows the proposed tools dedicate for each workshop.
Table 4. Tools in each roadmapping workshop.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Type of workshop</th>
<th>Techniques</th>
<th>Tool selections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation Stage</td>
<td>Virtual</td>
<td>Key stakeholders interview/brainstorm</td>
<td>1. Web portal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. JAIST Web conference [10]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Google form</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Facebook group</td>
</tr>
<tr>
<td>Development Stage</td>
<td>Virtual</td>
<td>Brainstorm, Focus group</td>
<td>1. JAIST Web conference [10]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Facebook group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Line group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Facebook group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Line group</td>
</tr>
<tr>
<td>2. Value proposition</td>
<td>Virtual</td>
<td>Linking grid (Market-Service)</td>
<td>1. Google form</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Facebook group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Line group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Facebook group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Line group</td>
</tr>
<tr>
<td>4. Product</td>
<td>Virtual</td>
<td>Scenario analysis [2], Linking grid</td>
<td>Google form</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Technology</td>
<td>Virtual</td>
<td>Resource gap analysis [2], Linking grid</td>
<td>Google form</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. R&amp;D, Knowledge,</td>
<td>Virtual</td>
<td>Brainstorm, Focus group</td>
<td></td>
</tr>
<tr>
<td>Partner [2, 25]</td>
<td></td>
<td>Charting</td>
<td></td>
</tr>
<tr>
<td>7. Charting</td>
<td>Face to face</td>
<td>Brainstorm, Focus group, Charting</td>
<td></td>
</tr>
</tbody>
</table>

4. Discussion and conclusions

Referring to our analysis and design of service roadmapping process, the preliminary research findings suggest the conceptual framework for implementing value co-creation service roadmap that can be used for integrated planning for R&D firms which plan with potential partners to shift from research-based to service-based; whereas it also can be adopted in a service organization as a tool for technology-based service planning. The preliminary framework consists of three guiding principles; 1) stages of service roadmapping implementation as Fig. 3, 2) stage of service roadmapping process as Fig. 4, and 3) details of techniques and selection tools of each stage as Table 2 and 3 respectively.

The V (Virtual and Value co-creation)-Plan approach is incorporating with blended workshop-based then firms can use this effective approach as strategic planning and service operation to increase engagement from multi-stakeholders in value co-creation roadmapping process. We clarify the incorporation by these two applications; 1) the roadmapping process: to apply the suggested service roadmapping process practically, the focus of roadmapping is on the second stage, value proposition which is the identification of value proposition from and value co-creation among stakeholders. It is an important stage to define what will be offered to the receiver from the provider and what the receiver expect to receive. Empathy map, descriptive and prescriptive value web and/or business model canvas are applied and 2) online and social media selection tools: In practical, we need to survey the majority of stakeholder’s social media tools usage then we can select the appropriate tools for each aim and stages.
In virtual collaboration aspect, the synergy of online and social media tools can be another approach for roadmapping process to resolves the limitation of the participation among stakeholders in term of space and time as proposed in Table 4. Surprisingly, we found that even though there are diversified ICT literacies among stakeholders but they have fully willing to participate and involve in the study.

To illustrate the applicability of our proposed conceptual framework, we are ongoing examine case example with a Thailand governmental R&D firm which specializes in rehabilitation engineering and assistive technology. In a practice, a _service roadmap on Assistive Technology for the elderly_ will be developed with V-Plan approach among stakeholders and experts.

The validity of proposed approach is incorporated by member check with multi-disciplinary experts in respective of their expertise. The stakeholders’ behavior is monitoring throughout the roadmapping process and stakeholder co-creation analysis is also conducted.

This study contributes the new mechanism to conduct workshop-based approach by using blended roadmapping process. It resolves the limitation of the participation and engagement among multi-stakeholders in term of space and time which mentioned in past research. However, this study is subject to some limitations. First, the case example provided in this study is now ongoing. As we planned, there are three phases of case example experiment: 1) Phase I: stage 1 to 6 which is virtual workshop will be conducted during June to July 2016, 2) Phase II: stage 7 which is 0.5-day face to face workshop will be conducted on August 1, 2016, in Bangkok, Thailand, and 3) Phase III: stakeholders’ observation will be conducted until end of December 2016. Second, the free open source software can be used for online and social media tools. Thus, the selection of service provider or service organization as case owner could be another fruitful approach for future research.

**Acknowledgements**

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**References**


Andreas Kaplan, M.H., Collaborative projects (social media application): About Wikipedia, the free encyclopedia.


David Güemes-Castorena, M.A.T. Methodology for the Integration of Business Model Canvas and Technological Road Map. in PICMET. 2015. Oregon, USA.


Gerdsri, N., A. Kongthon, and R.S. Vatananan, Mapping the knowledge evolution and professional network in the field of

Kumar, V., 101 Design Methods. 2013, Hoboken, New Jersey: John Wiley &Sons, Inc.


Peter Abrahamsson Lindeblad, Y.V., Oksana Mont, Peter Arrifalk, Organisational effects of virtual meetings. Journal of Cleaner Production, 2016. 123: p. 11.


Role of service quality and total attending cost on satisfaction and behavioral intention to return to a sport event

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Abstract

Sport consumption and associated activities contribute significantly to the growing international sporting development and national economic value in Thailand. The spectator sport of professional football, headed by the Thai Premier League, is rapidly expanding with some 300 football matches played each season. Indeed, the value of professional football has a financial turnover of more than 3.5 billion Baht each year to the Thai economy. As such, many sport organizations strive to increase their game-day attendance at sporting events to increase stadium and sport venue ticket revenues and profits from non-sporting offerings of supplementary services, such as parking, souvenir sales, food venues, and transportation. Therefore, the sport industry has financial necessity in providing spectators superior customer service and memorable experiences to increase the number of spectators attending the games. However, managing service quality and customer satisfaction at sporting events could be challenging because the nature of managing events requires high rates of people interaction and contact through several processing services. Although previous studies have proposed sport service quality frameworks, most studies fail to include the perceived aesthetic component in the conceptualization of service quality. The monetary costs of attending a sporting event (for instance, ticket, parking, food purchasing, and merchandise) also tends to be commonly investigated, but non-monetary or intangible costs (for instance, the time and effort needed for attending a game) are seldom investigated. To address this gap, this paper has proposed a conceptual framework that could be used to assess service quality at sporting events. The framework is comprised of total cost of attending, aesthetic quality (crowd experience, game atmosphere), technical quality (player performance, opponent characteristics), and functional quality (frontline employees, facility access, seat space). These factors are projected to affect the satisfaction of spectators, which in turn has positive effect on behavioral intention to attend future games. The proposed conceptual framework will contribute to expanding research associated with dynamic sport industry. The framework tenets could also be used as a set of potential guidelines for practitioners as well as a means to direct and provide best service value and experience for sport consumers.

Keywords: service quality, total attending cost, satisfaction, behavioral intention, sport event

* Corresponding author

1. Introduction

Sport consumption and associated activities contribute significantly to Thailand’s growing international sporting development as well as having national economic value (Shonk and Chelladurai, 2008). The spectator sport of professional football, headed by the Thai Premier League, is rapidly expanding with some 300 football matches played each season. Indeed, the value of professional football is one of having a financial turn-over of more than 3.5 billion Baht each year to the Thai economy (Na Thalang, 2015). As such, many sport organizations strive to increase their game-day attendance at sporting events so as to not only increase stadium and sport venue ticket
revenue, but also profit from non-sporting offerings of supplementary services such as parking, souvenir sales, food venues and transportation. Therefore, the sport industry has a financial necessity in providing spectators with superior customer service and memorable experiences in order to increase the number of spectators attending the games. Nonetheless, managing service quality and customer satisfaction at sporting events can be challenging given the nature of managing events requires high rates of people interaction and contact through a number of processing services, for instance, answering users' inquiries concerning a sports venue's services, bookings, lost and found matters, and payment method (Ho Voon et al., 2014). Moreover, sport venues which provide services dealing with sports behaviors may exhibit more complex intangible associations than organization dealing with transitory interactions such as banks (Alexandris et al., 2001).

Although previous studies have proposed some sport service quality frameworks, most studies fail to include the perceived aesthetic component in the conceptualization of service quality (Cronin, 2003). Likewise, the monetary costs of attending a sporting event (for instance, ticket, parking, food purchasing, and merchandise) tends to be commonly investigated, but seldom studied are the non-monetary or intangible costs (for instance, the time and effort needed for attending a game) (Ferreira and Bravo, 2007). As such, research addressing the roles of both service quality and total attending cost is crucial to assisting club managers in the development of strategies for increasing spectator attendance and improving customer retention (Biscaia et al., 2013). This is particularly relevant in professional football due to its global popularity and to serious investment made in sport facilities (Theodorakis et al., 2013).

Therefore, the aims of this paper are to explore the elements of service quality dimension for sporting events, and then formulate a conceptual model from the literature to examine spectator’s satisfaction and behavioral intention to attend future games. The proposed conceptual framework will contribute to growing the research that is associated with the ever dynamic nature of the sport industry. Furthermore, the frameworks tenets can be used as a set of potential guidelines for practitioners as a means to direct and provide best service value and experience for sport consumers.

2. Literature review

2.1. Service quality at spectator sports

Service quality has been defined as —the consumer's overall impression of the relative inferiority/superiority of the organization and its services (Bitner and Hubbert, 1994, p. 77).

Providing the highest level of service quality is a key factor of success in many business context including major professional sporting events. Therefore, the issue of service quality has drawn significant attention in the service-related literature due to its importance to building competitive advantage and to ensure the firms' profitability. Previous studies have suggested that consumers’ perceptions of service quality have been linked to spectators’ satisfaction and behaviour intention (Tsuji et al., 2007, Theodorakis et al., 2013, Du et al., 2015). Notably, perceptions of service quality are based on multiple dimensions, however there is no general agreement as to the nature or content of the dimensions (Brady and Cronin, 2001). Generally, there are two main frameworks regarding the conceptualization of service quality. The first one is the Gronroos (1988)’s framework, which defines the dimensions of service quality in global terms as comprising of technical quality (outcome of service performance) and functional quality (consumers’ perceptions of their interactions with service providers). The second, the Parasuraman et al. (1988)’s framework which is known as SERVQUAL, proposes the five service quality dimensions (reliability, responsiveness, tangibles, assurance and empathy), focusing on the differences between consumer expectations and consumer perceptions of the service. These two frameworks were further merged by Brady and Cronin (2001), who developed...
a conceptual model that ties service quality perception to interaction (attitude, behaviour, expertise), physical environment (ambient conditions, design, social factors), and outcome quality dimensions (waiting time, tangibles, and valence).

In the context of the sport spectator, there is a growing body of literature focusing on the measurement of service quality. For instance, McDonald et al. (1995) developed the TEAMQUAL scale to measure service quality in professional team sports. However, the psychometric properties of TEAMQUAL were not tested. Moreover, the TEAMQUAL scale is simply derived from the SERVQUAL framework that has been criticized in two ways. First, the SERVQUAL is too universal to encompass a specific service context due to the intangible and heterogeneous aspects of service (Brady and Cronin, 2001). Second, the SERVQUAL dimensions do not adequately explain the technical aspect of the service (Kang and James, 2004).

Wakefield et al. (1996) proposed the SPORTSCAPE scale, which is based on the Bitner (1992)‘s framework to measure spectators’ perceptions of the stadium and its relationship with attendance intentions. In turn, Theodorakis et al. (2001) adopted the SPORTSERVE scale to evaluate service quality perceptions among spectators and its impact on post-consumption reactions. These studies have highlighted the important role of service quality at spectator sport. However, the scale employed in both studies seems to be focused the peripheral aspects of the service delivery, while the core service attribute such as the game itself is overlooked.

An exploratory study by Kelley and Turley (2001) has indicated nine specific service attributes for measuring service quality at sporting event (i.e. employees, price, facility access, concessions, fan comfort, game experience, show time, convenience, and smoking). Likewise, Jae Ko et al. (2011) developed the model of event quality for spectator sport (MEQSS) by consolidating specific service attributes into the multi-level service quality model, which consists of five key dimensions (i.e. game quality, augment quality, interaction quality, outcome quality, and physical environment quality) and 12 sub-dimensions (i.e. skill performance, operating time, information, entertainment, concessions, employee interaction, fan interaction, sociability, valence, ambience, design, and signage). These studies highlighted the wide range of service quality attributes at sporting events, indicating that there is no commonly acknowledged conceptualization of service quality. Also, the predictive efficacy of these scales was not assessed, representing an important limitation for understanding the role of service quality in spectator sports.

Other researchers have used different approaches for assessing spectators’ service quality perception. For instance, Greenwell et al. (2002) employed the dimensions of physical facility, core product, and service personnel to evaluate service quality perceptions among spectators. Tsuji et al. (2007) utilized the scale of gravity game (SGG) to group service quality perception into two dimensions which are core service and peripheral service. Koo (2009) employed technical, functional, and environmental attributes which are based on the Wakefield et al. (1996) and Gronroos (1988)‘ framework, to measure service quality. Furthermore, Yoshida and James (2010) assessed the spectator’s perceptions of service quality (the interaction with service environment) and core product (game-related components) at sporting events. Although these studies contributed to understanding the dimensionality of service quality at sporting events and its link with spectators’ satisfaction, most of them fail to incorporate the aesthetic components of the service in the conceptualization of service quality. Aesthetic quality is referred to consumer’s perception of the aesthetically pleasing features of the service environment and ancillary product, for instance aesthetically appealing themes and designs (Yoshida and James, 2011). Therefore, Yoshida and James (2011) proposed a service quality model for sporting events through the aesthetic, technical and functional dimensions. However, the predictive effect of service quality on consumer responses has not been assessed in this study.
Research that examines the predictive effect of service quality use different frameworks to assess spectators’ service quality perception. For instance, Biscaia et al. (2013) employed the Yoshida and James (2011)’s framework to examine the effects of service quality and ticket pricing on satisfaction and behavioural intention. Based on the Gronroos (1988)’s theoretical framework, Theodorakis et al. (2013) developed service quality model, consisting of functional and outcome quality dimensions to examine the relationships among service quality, satisfaction and spectators’ behavioural intention. Ho Kim et al. (2013) adopted the MEQSS framework to predict spectators’ event quality perceptions and revisit intention. Ho Voon et al. (2014) developed an exploratory study and identified sport service quality scale (responsiveness, reliability, core, peripheral, and value) for measuring service quality at sporting venue. Recent study by (Du et al., 2015) developed a multidimensional participant sport event attribute and service delivery (PSEASD) scale to investigate the role of personal performance, an internal assessment of time-goal achievement, on participants’ event satisfaction. These studies make a significant contribution to conceptualizing service quality frameworks and successfully applying them to predict the spectators' satisfaction and behavioural intention. However, the attribute of aesthetic quality seem to be seldom included in the assessment of service quality for spectator sports (Cronin, 2003, Yoshida and James, 2011). Likewise, there has been relatively little research examining spectator perceptions of the total cost of attendance in relationship to the spectator’s satisfaction and behaviour intention. The monetary costs of attending a sporting event (for instance, ticket, parking, food purchasing, and merchandise) tends to be commonly investigated, but seldom investigated are the non-monetary or intangible costs (for instance, the time and effort needed for attending a game) (Ferreira and Bravo, 2007). Although, Biscaia et al. (2013) have extended the Yoshida and James (2011)’s framework to assess spectators’ satisfaction and behavioural intention through aesthetic quality, technical quality, functional quality, and ticket pricing, the total attending cost may be more important than the price of the ticket (Ferreira and Bravo, 2007). Moreover, the attribute of aesthetic quality has been rarely extended and tested in Asian professional sport context.

To conceptualize sport spectatorship service quality model, this study employed four service quality dimensions which include aesthetic attribute (Yoshida and James, 2011), outcome and functional attributes (Grönroos, 1984), and total attending cost. These factors are projected to influence spectators’ satisfaction which in turn has a positive effect on behavioural intention to attend future games. Figure 1 illustrates the proposed conceptual framework that reflects the important tenets identified from the literature.

![Proposed conceptual model for sport event service quality.](image-url)
2.2 Description of dimensions in the proposed model for sport event service quality

Aesthetic quality is related to the consumer’s perception of the aesthetically pleasing features of the service environment and ancillary products (Yoshida and James, 2011). According to Pine and Gilmore (1998), the key components of aesthetic quality include consumers’ participation in the value creation of a service, the relationships with environmental cues and the set of ancillary products (i.e. memorable goods and promotional activities). In spectator sports, Yoshida and James (2011) proposed the attributes of game atmosphere and crowd experience to capture the aesthetic quality dimension. However, it has been argued that visual appeal of the facility is a central aspect of the aesthetic environment, since spectator spend a great amount of time at the stadium on match days (Brady and Cronin, 2001). For this reason, Biscaia et al. (2013) incorporated the facility design as the third attribute in the aesthetic quality dimension. However, the findings of this study indicated insignificant relationship between facility design and spectator’s satisfaction, while game atmosphere is reported to influence satisfaction and crowd experience to directly impact behavioural intention to attend the match. For the purpose of this study, we propose the dimension of aesthetic quality consists of facility design, game atmosphere, and crowd experience.

Outcome quality focuses on the outcome of service production and delivery (Biscaia et al., 2013). Grönroos (1984) refers outcome quality to what the customer receives, that is what is left for the customer, after the production-consumption process is over. According to Kelley and Turley (2001), outcome quality is account for the consumers' perceptions of the core product. In sport marketing theory, core product is associated with game related attributes, such as players' performance, game quality, team's characteristics and valence (e.g. the outcome of the experience itself) (Yoshida and James, 2010, Yoshida and James, 2011, Theodorakis et al., 2013). In other words, outcome quality represents the quality of the athletic competition that the consumer observes at the event and its outcome. Several studies, for instance Brady et al. (2006) found game related factor to have a strong influence on spectators’ satisfaction and experience. Likewise, Biscaia et al. (2013) found a positive relationship between team performance and spectator’s satisfaction. Therefore, we propose the dimensions of game quality and team performance to be included within the outcome dimension of service quality.

Functional quality focuses on the peripheral element of the service quality (Grönroos, 1984). It refers to the customer’s evaluative perceptions of the facility or stadium environment, the supporting services (i.e. parking, concessions) and the interactions between the spectators and the employees (i.e. ticket sellers, concession clerks, merchandisers, ushers, and customer representatives) (McDonald et al., 1995). Positive evaluations of the environment and service personnel may influence consumers' perceptions of service encounters (Bitner, 1992). Prior studies have highlighted the importance of distinguishing the concept between functional and aesthetic quality, since both dimensions seem to share similar aspect of service environment. Therefore, this study refers the functional aspect of a service environment (i.e. space, layout, and information signs) to as functional quality, while the aesthetic aspect of the service environment (i.e. design, theme, and festive atmosphere) to as aesthetic quality. This is in line with Yoshida and James (2011) who proposed the attributes of frontline employees, facility access, and seat space to measure the spectator's overall perceptions of functional quality. The three attributes has also been employed in the study of Biscaia et al. (2013) representing the functional quality dimension to predict spectator's satisfaction and behavioural intention. Therefore, we propose the dimension of functional quality consists of frontline employees, facility access, and seat space.
On the basis of the previous literature, a positive relationship between three service quality component and satisfaction is postulated below:

H1. Aesthetic quality positively influences spectator satisfaction.
H2. Outcome quality positively influences spectator satisfaction.

2.3 Total attending cost

Cost of attending a sporting event can be referred to what a spectator sacrifices in order to attend a game from his/her team (Zeithaml, 1988). The spectator’s sacrifices include monetary cost (admission ticket, parking, transport, and purchase of food and merchandise) and non-monetary or intangible cost (the time and effort needed for attending a game) (Borland and MacDonald, 2003, Ferreira and Bravo, 2007, Dobson and Goddard, 1995). The total cost of attending a sporting event has been suggested as an important factor that is expected to exert a negative influence on attendance, especially sport fans (Dobson and Goddard, 1995). Ferreira and Bravo (2007) noted that high level of cost can be a major barrier to attend the game. In other words, spectators may choose not to attend the actual match, if the total attending costs involved are found to expensive or the benefit of attending the match do not offer value for money. A study by Biscaia et al. (2013) indicted the spectators’ perception of ticket price have an influence on behavioural intention to attend a professional football. In sum, we proposed a construct of total attending cost which cover the aspect of monetary and non-monetary cost. Thus, the following hypotheses are formulated:

H4. Total attending cost negatively influences spectator satisfaction.

2.4 Satisfaction and behavioural intention

According to Oliver (2014), consumer satisfaction is defined as a consumer satisfaction to a pleasurable fulfilment response towards a good, service benefit or reward. In the context of spectator sports, spectator’s satisfaction is referred to — a pleasurable, fulfilment response to the entertainment of the sport competition and/or ancillary services provided during the gamel (Yoshida and James, 2010, p. 340). Koo (2009) argued that spectator’s satisfaction is a result from attending a match, in which it is considered as an important indicator for developing fan royalty and increasing a team’s revenue. A number of studies have noted that service quality affects customer satisfaction. For instance, Tsuji et al. (2007) found game related factors (i.e. outcome, core service quality) to have a strong impact on satisfaction, whereas Greenwell et al. (2002) found peripheral aspects of service (i.e. functional quality) to affect spectators’ satisfaction. In the same way, Biscaia et al. (2013) found game atmosphere and crowd experience which represent the aesthetic quality to influence satisfaction. The analysis of consumer behavioural intention is important to the success of sport organizations. A positive experience often lead to favourable behavioural intention toward the service provider, for instance saying positive things about the company, recommending the service to others, remaining loyal, spending more money on products and services and paying a price premium (Biscaia et al., 2013). However, when the service quality does not meet expectations, customers feel dissatisfied, and this may influence their subsequent behaviour, such as saying negative things, switching to competitors, complaining to external agencies and decreasing the amount of business to the company (Zeithaml et al, 1996). The conceptualization of behavioural intention has been adapted to a sporting context (Cronin et al, 2000; Yoshida & James, 2010) through the use of three indicators: repurchase intentions, word-of-mouth communication and consumer loyalty. Consistently, behavioural intention
is defined in the current study as the spectator's intention to attend future games, recommend them to others and remain loyal to the team.

This study employed the mediated effect model which explains the causal relationship between the proposed service quality dimension, total attending cost, and behavioural intention by mediated by satisfaction. Therefore, the following hypotheses are formulated:

H5. Satisfaction has a mediating role between aesthetic quality and behavioural intention
H6. Satisfaction has a mediating role between outcome quality and behavioural intention
H7. Satisfaction has a mediating role between functional quality and behavioural intention
H8. Satisfaction has a mediating role between total attending cost and behavioural intention

3. Conclusion

Due to relatively little attention have been given to incorporate the aspect of aesthetic quality in the conceptualization of service quality dimension, this study proposed three attributes which are aesthetic, technical, and functional quality to be included in the service quality dimension for sporting event. In addition, this study also proposed a concept of total attending cost which cover the aspect of both monetary and non-monetary costs. Therefore, we proposed a service quality framework for sporting event which include aesthetic quality, technical quality, and functional quality. These factors are projected to influence spectators' satisfaction which in turn has a positive effect on behavioural intention to attend future games. The proposed conceptual framework will contribute to growing the research that is associated with the dynamic sport industry. Furthermore, the frameworks tenets can be used as a set of potential guidelines for practitioners as a means to direct and provide best service value and experience for sport consumers.

References


An examination of guest dissatisfaction in budget hotel: a content analysis of guest review on TripAdvisor

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Abstract

To date, while a plethora of studies has been conducted to understand the attributes that influence hotel guests’ satisfaction, still questions remain unanswered. This is due to the fact that most studies focus on the quantitative approach, which is lacking in depth and richness of information. Moreover, majority of the previous studies rely on pen and paper or web survey approach to collect respondents’ responses. Only a handful of studies have used organic data sources from online review sites to understand guest dissatisfaction in the hospitality industry. Previous researchers agreed that the multidimensional characteristics of the attributes that relate to guests’ dissatisfaction depend on the context of the study. Therefore, this study focuses on the attributes that influence guests’ dissatisfaction in the context of budget hotel in Pulau Pinang. This segment of the hotel industry has been largely neglected by past studies, which tend to concentrate on 4 to 5-star hotels. To address these gaps, the current study proposes a holistic understanding of the attributes that influence guests’ dissatisfaction in budget hotels based on their comments and ratings in the online reviews sites.

Keywords: guest satisfaction, budget hotel, TripAdvisor

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1. Introduction

The advancement of online review sites in the Internet has significantly changed the hospitality industry landscape (Browning et al., 2013). The immense development of these online review sites led to the existence of organic data sources. This contributes to the innovation of latest techniques use to investigate social science phenomena in a wide array of research domains (George et al., 2014). The main idea behind this technique is that it emphasizes on the collection and examination of organic data from customer review sites to solve real-life issues (Mayer-Schonberger and Cukier, 2013). Focusing on the hospitality industry, there is an increasing interest among academicians and practitioners to use the technique for investigating complex phenomenon beyond the comprehension of conventional approach (Yang et al., 2013). Undeniably, this technique provides the opportunity for researchers to better understand a particular subject of interest and to help practitioners in the hospitality industry making effective business decisions. However, limited study has been conducted using this kind of technique especially in the hospitality domain, which is still in its infancy.

This study attempts to explore and examine the attributes that influence guest dissatisfaction. Satisfaction has long been a subject of interest in the hospitality industry due to its positive effect on word of mouth, purchase intention, repeat purchase and loyalty (Oh & Park, 1997). The topic is particularly critical in the hotel sector because of the competitive nature of the business that offers almost similar products and services. Essentially, hotel guest satisfaction has become one of the primary indicators that measure the performance of a particular hotel, indirectly distinguishing it from other competitors. Although a plethora of studies have investigated the antecedents of guest dissatisfaction (e.g., Choi & Chu, 2001; Matilla & O’Neill, 2003; Su, 2004; Wu & Liang, 2009), they were merely based on traditional data collecting approach such as using interview and survey to...
measure the attributes that contribute to guest dissatisfaction. Thus, this study takes a step forward in introducing the big data analytics technique to investigate the attributes that could lead to guest satisfaction. For this reason, the main research questions: what are the attributes that influence guest satisfaction in budget hotel? This study focuses on the budget hotels in the state of Pulau Pinang, which is one of the popular destinations among budget travellers to Malaysia.

2. Literature review

2.1 Guest dissatisfaction in budget hotel

Generally, dissatisfaction is contributed to a certain negative emotions such as anger, sadness, and regret contribute to (Smith & Bolton, 2002). There are two ways how connections between emotions and dissatisfaction can be demonstrated: the valence-based approach and the specific emotions approach (Zeelenberg & Pieters, 2004). In the valence-based approach, negative emotions are likely to contribute to dissatisfaction, while positive emotions are likely to lead to satisfaction. This study focuses on the latter, specifically by examining what type of products and services in budget hotel lead to guest dissatisfaction. Previous studies have theorized hotel product and service to several categories: (1) the core product, such as the hotel room, deals exactly with what the customer receives from the purchase; (2) the hotel product also includes facilitating, supporting, and augmenting elements such as the interactions with service providers and other customers (Kotler et al., 2006). Other than that, Dolnicar and Otter (2003) stated that hotel products and services could also be represented as a set of attributes. These attributes include services, location, room, value, food and beverage, image, security, and marketing. All of which are important determinants of guest satisfaction or dissatisfaction.

With increasing number of domestic and international travellers, budget hotels are one of the fastest growing segments in Malaysia hotel industry. Previous studies has defined budget hotel as small, limited facilities with budget price (Quest, 1983), limited service accommodation with good value for money (Gilbert & Arnold, 1989), and for budget-conscious travellers (Brennan, 1991). In a more recent definition, Ruetz and Marvel (2011) stated that budget hotels typically have 50 rooms, sometimes branded by a major hotel chain, standardized appearance, and provide limited no frills service. Similarly, Rogerson (2011) said that limited service hotels are typically smaller than full-service hotel and features less auxiliary spaces such as lobby space and restaurants. For this study, budget hotel is defined as basic accommodation that provides limited service and reasonable room prices that cater for budget-conscious travellers. Although budget hotels are significant component of the hospitality industry, review of the literature indicated that limited study has been done to examine guest dissatisfaction in budget hotels. Previous studies have focused more on the strategic efforts of creating budget hotels (e.g., Huang & Chathoth, 2011), budget hotels market development (e.g., Ruetz & Marvel, 2011; Rogerson, 2011), and success factors for budget hotels (e.g., Zhang et al., 2013). Therefore, this study attempts to investigate the attributes that influence guest dissatisfaction in budget hotels in Pulau Pinang, Malaysia.

2.2 Online guest review sites - TripAdvisor

Online review sites are increasingly popular with hotel guests as platforms to provide feedbacks regarding their stay. Example of popular online reviews sites include but not limited to Expedia, TripAdvisor, and Agoda. From the hotel industry perspective, these sites are often perceived as more up-to-date, reliable, and trustworthy than content supplied by travel provider (Gretzel and Yoo 2008). This is supported by Sparks and Browning (2011), that found the online reviews has a great influence
on guest decision to choose a particular hotel. This is due to fact that numerous guests from all over the world voluntary post their honest comments about their good and bad hotel experiences. According to Au et al (2010) by using online review sites, dissatisfied customer can express their comment in a private and unanimous manner. Indirectly, this contributed to the increasing number of travellers using online review sites for seeking information (Pantelidis, 2010).

In addition, online review sites have become particularly important for businesses, which deal with —high risk and costly services, such as budget hotels. In a study conducted by Gretzel et al. (2007), they found that nearly half of the travelers surveyed indicated that they used online review sites in planning their travel itineraries. They preferred to use the sites because of the participatory, collaborative, user generated, and dynamic characteristics of the online review sites. These sites are especially appreciated when it comes to providing/seeking information about intangible products or/and services, such as hotel accommodation. One of the most popular online review sites for hotel guest to provide comments is TripAdvisor, which is the context of the study.

TripAdvisor currently enjoys a reputation as one of the most successful websites dedicated to travel, providing travelers with information on trip and hotel booking, travel planning, as well as reviews of various businesses and facilities. TripAdvisor plays a dominant role in the online travel market and has continued to grow in popularity since its inception in 2000 (Law, 2006). At present, the site claims to have over 260 million unique monthly visitors, and over 150 million reviews and opinions covering more than 3.7 million accommodations, restaurants and attractions (TripAdvisor, 2015). Though the site is clearly multi-functional in nature, one of its major functions is providing user-generated content on travel-related information, including reviews of hotel experiences. Besides allowing consumers to post their reviews of hotels, TripAdvisor also provides a space for hotel management to respond to each review.

3. Research methodology

3.1 Content analysis

To analyze the attributes that contribute to guest satisfaction, the study sorted the 72 budget hotels based on their popularity. Based on a non random purposive sampling five budget hotels with the lowest rank were selected. However, after a careful examination, some of the worse performing budget hotels did not have any guest reviews and satisfaction ratings. Thus, using judgement of the researcher, only those budget hotels that have guest reviews and ratings were selected. The data was collected in 2 weeks period in the month of September, 2015. The selected budget hotels: (1) Hotel Sentral Georgetown, (2) Waterfall Hotel, (3) Red Rock hotel, (3) Old Penang Hotel, and (5) Regal Malaysia Hotel. A total of 24 guest comments were analysed from the five budget hotels.

In this study, a standard procedure for the content analysis involves two processes, coding and categorizing. After the data has been collected, it is coded into analytic pieces that ease the categorizing process (Strauss and Corbin, 1990). At this stage, the data need to be checked meticulously, and then appropriately label with a relevant code (Hennink et al., 2011). Once coding is completed, the categorizing process can begin. In contrast with codes that often highlight single issues in the data, categories bring together a group of codes that collectively represent a broader concept or topical issue (Hennink et al., 2011). Thus, categorizing analysis begins with the identification of codes that appear to be important or meaningful in a certain way (Maxwell, 2013). During the categorizing process, the researchers compared the codes constantly to refine them and obtain distinct categories. This process continues until the data reach a point of saturation, which refers to the state when no
further categories are added. Each category then is defined clearly. Finally, codes are sorted into the defined categories that will be used in further analysis.

4. Analysis and results

4.1 Profile of the online guest reviewers

A total of 24 guest reviews were selected from the TripAdvisor web site. These reviews are taken from the top five worst budget hotel in Pulau Pinang based on the TripAdvisor ranking. Most of the guest review are from male (41.7 per cent), then female (33.3 per cent) and unknown (25.0 per cent). In terms of country of residence, the highest review are from Malaysian (45.8 per cent), followed by Singaporean (16.7 per cent), Thais (4.2 per cent), Hong Kong (4.2 per cent), and Indian (4.2 per cent) and unknown (25.0 per cent).

4.2 Content analysis implementation

Based on the examination of the five worse performance budget hotels, a total of 24 guest reviews were subjected to content analysis, followed by coding and categorizing of the data. Coding with an inductive approach was first applied to fracture the reviews into analytic pieces (Strauss and Corbin, 1990). The principal researcher read the comments carefully, considered which codes were written, and then labeled the comments with relevant codes. For example, in one comment, ―I will never choose this budget hotel very dirty…do not recommend‖, cleanliness was coded as attribute.

Next, categorizing was then performed by grouping the codes with similar attributes into broad categories. This process represents a higher-order grouping of data and leads to a conceptual understanding of research issues (Hennink et al., 2011). During the categorizing process, the principal researcher reconsidered the codes and divided them into different categories according to their certain commonality, and then the categories were named carefully. For example, in this study, when analyzing the negative comments, codes such as —located far away from commercial area, —difficult to find transport, and —very far from attractions‖, were classified under the category of location because they share the same attributes of location. The developed categories were also compared and refined constantly ensure distinct and saturated categories.

As a result, all the codes that emerged in the coding process were classified into various labeled categories. Through this method, three main categories were identified: (1) Physical environment, (2) service quality, and (3) value. Under each of these categories, there were several distinct subcategories. The first category, physical environment, has four different subcategories: locations, cleanliness, sleep quality, and room features, while the second, service quality, has five subcategories: tangibles, reliability, responsiveness, assurance, and empathy. There were only two subcategories, economic value and functional value, emerged from the third category, value. The subcategories represent the multidimensional of the attributes that contributed guest dissatisfaction. Although point of data saturation was achieved at the 20th guest comments, four guest reviews were added to ensure no new category emerged. Then, a frequency examination of the attributes was performed to allow meaningful assessments.

4.3 Dimensions of physical environment

Physical environment was the most cited complaint by guest in three-star hotel Pulau Pinang, attracting 57.7 per cent complaint. There are four sub themes that have been found in this physical environment theme.
4.3.1 Sleep quality

The first sub theme in this physical environment that influences the guest satisfaction is quality of sleep. Based on the data from the guest comment review has mentioned about the quality of sleep in three-star hotel Pulau Pinang that they have experienced.

—The night was even worse when we were given rooms near the exit and staircase. Loud noise can be heard all night and you cannot even sleep peacefully‘’. (Malaysia, September 2014).

Similarly, with the second guests that make complaint about their bad experience of sleep in the three-star hotel that they have experienced.

—This is the worst hotel I have ever stayed at the only good thing is location, but find another hotel you will sleep better‘’. (Unknown, March 2014).

Some of the comments by the guest about the sleep quality in three-star hotel were as follows:

—The first’s night sleep was horrible; we could hear people talking and water going down pipes. (Unknown, December 2014).
—We were encountered a sleepless night caused our body were bitten by the bugs, itchy and swollen. It was horrible’. (Unknown, January 2014).
—The noise that produced by the pressured water was very disturbing, enough to wake people up from sleep. (Unknown, December 2014).
—Noise! I am not interested in the walkie talkie conversation of staff while I’m still sleepingl. (Unknown, January 2014).

4.3.2 Location

The second cited of sub theme in the physical environment is location. The guest makes the complaint about the hotel that was not strategic location for their stay. The comment about the location was as follow:

—The location is very bad, nothing within 10-12 KM from this hotel‘’. (India, December 2014).
—I am very happy with the cleanliness of the room. However, the location of the hotel is not really good as it’s outside Georgetown. (Vietnam, May 2014).
—Badly situated in the middle of nowhere, the address looks good but in the worst part, long walk to the legendary food stalls and really too far to walk into townl. (Singapore, August 2014).

4.3.3 Room facilities

Third sub theme of physical environment is quality of room. In previous studies report that room qualities such as cleanliness, quietness and facilities offered, are important considerations for travellers in lodging selection (Knutson, 1988; Barsky and Labagh, 1992; McCleary and Weaver, 1992; Gilbert and Morris, 1995; Heung et al., 1996). Guest most complaint about the quality of room in three-star hotel Pulau Pinang is because of the air conditioning did not functioning well in their room.
—It was disappointing that there were many complaints about the air-conditioning 2 year ago, we stayed in a room which the air-conditioning was poor. While this year, what happened was that the air-conditioners sensor was not working. Causing the disabilities to regulate the room temperature, we were forced to sleep in a room which is quite cold for us throughout our stay. (Unknown, December 2014).

—The furniture was old and calling for a replacement. (Singapore, November 2014).

—It was an unforgettable experience for us as there were plentiful of big bed bugs during our stay. (Unknown, January 2014).

—Bad design of room, without a glass mirror and a separation, every time we shower, the water will split out to whole bathroom. It’ll make the bathroom floor very slippery. (Singapore, September 2014).

4.3.4 Cleanliness

The last sub theme for the physical environment is cleanliness. Based on the result that has been collected in TripAdvisor most of the customer complaints about the hygiene of the room and the facilities in the rooms such as toilets, bed sheet, and the worst comment have been found in the hotel is the cleanliness of the fridge in the room.

—When we checked in our 2 no of deluxe rooms on 31 Jan at 2nd floor the room has a stink smell and the wall is decorated with patches of dirty stains. The worst things is opening the fridge, we found yellowish fluid inside. (Kuala Lumpur, Malaysia, March 2014).

Besides that, another complaint is:

—Dusty! I can’t stay longer as I have a sensitive nose. Can you imagine that you can wipe a finger-thick of dust on the bed side? ‘‘. (Malaysia, August 2014).

—This is my first time to see dirties towel in the world. Actually the colour is white, but now is full of black fungus things on it. (Singapore, September 2014).

4.4 Dimensions of service quality

Service quality was the second most cited complaint by guest in three-star hotel Pulau Pinang, attracting 36.5 per cent complaint. Service quality can be defined as the degree of difference between the customer expectation for service and their actual perception of performance (Parasuraman et al., 1985). The poor service will leads to customer complaint and dissatisfaction towards hotel. There are five sub themes that influences guest satisfactions have found in this service quality theme.

4.4.1 Tangibles: Apperance of equipment and personnel

The first sub theme from service quality is tangibles. The complaint that make by the guest about this sub theme is:

—Took two rooms and was shocked at the different level of amenities and upkeep. (Malaysia, December 2014).

—Bed are not comfortable, only one pillow provided for one single bed —. (Malaysia, December 2014).
4.4.2 Reliability: Ability to perform service accurately

Besides that, the second sub theme for the service quality is reliability. Reliability can be defined as ability to perform the promised service dependably and accurately (Van Iwaarden et al., 2003). The customer comment that relate with sub theme is:

—The check in process was very slow; rooms were not ready even at 2 Pm. It took us almost an hour just to settle our check inl. (Singapore, September 2014).
—I make the call to the receptionist to confirm my reservation but they failed to give me an answer and none of them bother to call me back regarding the matterl. (Malaysia, December 2014).

4.4.3 Responsiveness: Ability to provide prompt service

The third sub theme of service quality is responsiveness. Responsiveness is willingness to help customer and provide prompt service. In the TripAdvisor guest make the complaint that the staff that cannot fulfil their request. For example the comment that been collected from the three-star hotels in the TripAdvisor found that:

—The staff service could be improved, we ask for extra towel since there only one but they bring us a prayer mat. The waiters that bring us food didn’t have exact exchange so we have given him a generous Tip. When we asked to use the business centre to print our flight ticket a staff said we can use a computer near the front desk but the staffs there aren’t cooperating muchl. (Malaysia, December 2014).
—Called to request for extra blanket, but have to wait for 1 hour never arrived, then need to informed reception againl. (Malaysia, March 2014).
—Main gripe is the service. They couldn’t book a taxi for my morning flight when I tried to book at 6.30pm as the travel desk had gone home. They asked me to come down and booked it myselfl. (Unknown, April 2014).

4.4.4 Assurance: Competency, courtesy, credibility and security

The fourth sub themes are assurance. Assurance can be defined as knowledge and courtesy of employees and their ability to inspire trust and confidence (Van Iwaarden et al., 2003). The comment make by guest is:

—Find back the staff and said the room was wrong given. However, the staff said the suite had already full house, before check in you said special promotion and empty room for suite room but after I checked in and paid my deposit you said room were fulfilled. (Malaysia, February 2014).
—Poor service by hotel receptionist. Even we paid all to Air Asia, her denied that we need to top up the differences ($50) to have a roll up bed & free buffet breakfast .After we rectify with her regarding this, she realised their hotel got this package. (Singapore, September 2014).

4.4.5 Empathy: Warm, caring and personalized service

The last sub theme in the service quality is empathy. Empathy (including access, communication and understanding the customer) can be defined as caring, individualized attention that the hotel provides to its customer (Van Iwaarden et al., 2003). The comment make by guest is:
—I just want to share how really bad receptionist in this hotel. She simply say bad thing against the customer she thought we don’t understand what she saying about. They are so rude and no manner like they hate to work how they treated their guest in this hotel. It is really disappointed and embarrassing‖. (Unknown, November 2014).

4.5 Dimensions of value

There is a two sub theme in the value factor that influences guest’s satisfaction in three-star hotel which is economic value and functional value. The value theme is the less complaint from the guest in the comment review at TripAdvisor web site. There was 5.8 per cent guest complaint related to value factor that influences guest satisfaction in three-star hotel Pulau Pinang. Value is used as an important indicator of quality (Brucks et al., 2000), particularly for hospitality consumers (Zeithaml, 1981). In this value theme there was two sub theme that has found.

4.5.1 Economic value: Monetary value of the product/service

The economic value is the monetary value of the product and personnel. The customers make the complaint that the price of room is not accurate at the hotel. The price that the hotel reviews at their web site is not accurate with their actual price. The hotel did not update the price at their hotel website and make their guest misinformation with the price at the website. When this problem occur, guest will feel the hotel is cheated them because of the different price that they have to paid when they want to make the payment. In the TripAdvisor the guets has comment that:

—The price of deluxe room on web site is RM 140. I double confirm the price with the receptionist. After I confirmed the price is RM140. I booked a deluxe room but after I reached there, they told me that the price changed to RM 180, it is so terrible‖. (Malaysia, February 2014).

Additionally, the guest also feel disappointed with the false information of the price at the hotel. The inaccuracy price is not just occurring for the room rate of hotel, but it also occur in the other department of the hotel such as food and beverage department. Thus, the comment that guest posted at the TripAdvisor is:

—Information from staff is not accurate as one of the staff said that the breakfast buffet for a child age 12 is RM 10 but it turns put RM15 on the next day‖. (Unknown, March 2014).

4.5.2 Functional value: Ease and convenience of the product/service

Second sub theme of value is the functional value. Functional value can be defined as ease and convenience of product or services. Based on this sub theme, customer complaint about the hotel that they have experience which is the rate of room is not reasonable with the product and service that hotel provided. When the price of room is highest then the product and service that provided in the hotel must exceed the customer expectation. The problem that customer feel dissatisfied with the value of price is when they pay the higher rate of room for the hotel but the product and service that they get is not reasonable with the price they pay. Customer tends to complaint when the facilities in the room are not complete and the room is just the average room but the price that the hotel charged is quite higher.
—The first room I check in 1201, the facilities in the bath room are not completed, no towel, Jacuzzi is dirty. The pillow, the bed very old and the bed sheet is very dirty. Very uncomfortable and not worth for the price, it just like pay a high price but stay in a low range. (Malaysia, April 2014).
—Everything is old. With this price I could get a better one which just opposite them. (Malaysia, December 2014).
—Internet was not available; a full house is no excuse in that price range. (Unknown, January 2014).

5. Recommendation and conclusions

On the basis of the results of this research, we propose several suggestions for the budget hotel operators, especially in Pulau Pinang. These businesses should concentrate on critical attributes to improve the satisfaction of their guests. First, the study revealed value as the primary critical attribute for guest satisfaction. The value for money of budget hotels, being small-scale accommodations, influences customer satisfaction and behavior intentions greatly. Thus, budget hotel managers need to consider ways to provide guests with high-value stay experiences at reasonable or low prices or to devise price-marking strategies to achieve this goal. Meanwhile, room features were identified to have a significant effect on customer satisfaction and intentions. Hence, balancing the level of facilities and low price is a major concern for budget hotels. They can consider controlling the cost in other aspects instead of excessively decreasing the quality of room amenities. Location was found to be critical for budget hotels, just as they are for large-scale hotels. Thus, hotel budget managers should consider site selection before opening budget hotels. Service quality is found to be the most important attribute that influence guest satisfaction. Thus, budget hotels should improve their level of service. Listening to their feedbacks and take prompt action can achieve this. Finally, numerous consumers tend to book their rooms through online travel agencies before setting out. Thus, budget hotel managers should pay close attention to guest comments online in order to survive in the highly competitive hotel industry.

The budget hotel, as an inexpensive hospitality segment, represents a major strategic development in the hotel industry. It provides a great opportunity for extending the concept of service quality provision at the lower end of the hospitality market. This budget segment also has managed to increase the hospitality market's dimensions. This study applies text analytics to classify a large amount of online budget hotel guest reviews, assess the quality of these data. The uniqueness of this study lies in the use of large data and delineation of guest experience drivers on a scale that was not available in traditional guest survey studies. Although this study is a preliminary effort in big data analytics, it gained substantial insights into some of the extensively studied constructs in the hospitality industry. As such, it is hoped that this study sets an example for the development of business analytics in hospitality management.

This study has several limitations and the findings should be interpreted with caution. Particularly, it is well known that there is self-selection bias when customers post online reviews. For example, customer satisfaction rating tends to be more on the negative side as clearly shown in the dataset. Another limitation was that the sample represented only urban budget hotels in the top 72 budget hotels in the area of Georgetown, Pulau Pinang. The hotel attributes identified in customer reviews obviously reflected the perceptions of location-related aspects of the hotels. Guest experience could be considerably different in less populated, rural areas. Nonetheless, the potential limitations in the generalizability of the findings does not reduce the internal validity of the data and thus does no harm to the purpose of demonstrating the power of big data analytics in the field of hospitality. Future
research could replicate the study to other segments of the hotel industry. Conducting a comparative analysis of attributes of budget hotel and big size hotel and identifying possible gaps between service providers and customers will provide valuable insights to budget hotel managers.

References


Market oriented innovations in tourism
Ruhet Genc
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Abstract

The phrase —innovation in tourism— always reminds us with tangible outputs and techniques. On the other hand, tourism considered to be an area where you have to make the best out of obviously seen existing values; such as history and culture or natural beauties like the worn-out trio, 3S, namely sea, sand and sun. However, this is not necessarily the only possibility. Most of the successful destinations owe their popularity to market oriented innovations that determined insightful innovators conduct. The current tourism arena is a field where the visionaries and innovators rule the future and will have increasingly more to say.

The fast-growing global population and potentially even more increasing tourist percentage in the world drive the field of tourism to re-invent, re-innovate and re-define the destinations, potential facilities and activities. Another words, make the limited virtually unlimited depending on the power of applicable innovations. There is and can be a potential sensitive demand created that needs to be fulfilled carefully. Another fact that feeds this demand is the increasing convenience of logistics and easy access to information. Therefore, even the destinations are continents away, there will be a demand as long as the supply is created and presented in the right way and in the right time to the right customers and potential customers.

Market oriented innovations in tourism can be interpreted, as creating, reinventing or improving destinations with the aim to allure the targeted and newly created groups of tourists. The process might start from scratch or an existing destination could be improved to appeal to the tourists. Local or worldwide trends, sustainability, economic and sociocultural values & changes are factors that need to be considered while carrying out the innovations. Importantly, innovations could be analyzed for their effectiveness in increasing the existing capacity of and survival of tourism industry, in minimizing the negative effects of crisis and lastly in opening new ways when the market is saturated. After the devastating bombing attack to Istanbul, Turkey Airport, there happens a crisis in the tourism industry and innovations could be helpful in finding solutions to the negative effects of the crisis. Even tough, the market is saturated, innovative actions and approaches can increase the business volume, quality and varieties.

Whose responsibility to develop innovative approaches for tourism industry? The answer all the stakeholders including the government policy. Tourism stakeholders are operating in a very competitive arena. Sometimes, in order to exist and almost all the time in order to grow innovative approaches are necessary.

The last but not the least most important trait required for this kind of innovation is the profound understanding of people from various angles, the ability to understand the related factors and having a correct vision of the future. In this chapter, you and I will explore success oriented examples of market oriented innovations in tourism and try to explore the driving forces behind the facts.

"If life is a journey, let's have a nice trip all together."
References


Hjalager, A-M. (2002), Repairing innovation defectiveness in tourism, Tourism Management, 23


Service innovation and resource integration for sustainable business model development

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This study aims to assess and analyze the manner in which service innovation enables sustainable business model (SBM) development through the integration of different business models to create and co-create value, which is embedded on social and environmental perspectives. The objective of this study is to investigate in detail the employment of different business models over short or long periods of time. This study is conducted by integrating these business models to co-create value within the service system for an SBM development based on global business.

This study will be explorative and built around four concepts, namely, service innovation, business models, value co-creation, and sustainability. Business models and resource integration for sustainable public transport services allow us to extensively assess the drivers of change based on these concepts. This study will illustrate these concepts with three different PT cases from Gothenburg, Sweden; Cape Town, South Africa; and Hamburg, Germany. The focus is Volvo Bus Corporation, based on these three different case studies around the globe, to understand the service system and SBM development.

This study reveals that service innovation is a method of building a coherent SBM embedded in social and environmental contexts by integrating business models to create value. This revelation leads to a new understanding and strategies of the shift from and beyond providing buses but mobility by providing services for new sustainable business models. This study does not design a new system but uses the influence of the demand for sustainable system, thereby contributing to the service research and sustainability discussions.

We believe that the study makes an original contribution to the literature on public transit by explicitly linking the adoption of SBM and service innovation based on sustainability and resource integration and value co-creation. Future research in this area should focus on generalizing the present findings by studying the development and integration of SBM thinking in other empirical settings and conceptualization.

\textit{Keywords: service innovation, sustainable business model, resource integration, value co-creation}

* Corresponding author

1. Introduction

Business environments are constantly evolving towards higher complexity, which are among the many issues challenging modern management theories and practices. This new environment has also amplified the need to consider not only how to address customer needs more perceptively, but also how to capture value and co-create value from providing new products and services. One of the most discussed management concepts are value and value co-creation. The understanding of how value is \_co-created\_ and \_assessed\_ in what we will call \_resource integration\_ in specific contextual settings is
deemed essential in optimizing value co-creation, service experience, marketing issues and thus ultimately in meeting the major challenges. The main theoretical challenges are how to understand and measure value and value co-creation to develop and implement a feasible business model.

Innovation is essential for sustainable achievement (Nidumolu et al., 2009). The concept of innovation is multifaceted. A service innovation may not only involve new services, but also require new technology, new networks and new procedures. Moreover, such innovations can be radical or incremental, and can be based on utilitarian principles or on experience. Service systems can promote both excellence and innovation (Rubalcaba et al., 2010). Service innovations are based on customer-focused S-D logic whereby value is co-created with customers who are resource integrators (Baron and Harris, 2008). The process consists of the actors who use its resources for the benefit of the other party. This implies that both the service provider and the customer are part of the value creation; together they integrate resources in order to co-create value (Gummeson, 2008). However, without a well-developed business model, innovators and producers will fail to either deliver – or capture and co-create value. This is particularly for business enterprises that implicitly and explicitly describe their business model based on the design or architecture of the value creation, delivery, and capture mechanisms it employs (Teece, 2010).

The aim of this paper is to assess and analyze how service innovation enables sustainable business model (SBM) development through resource integration/value co-creation. The objective is to look deeper on how resources are integrated and value is co-created within the service system for a SBM development. To really fulfil the ambitious goals for service and resource integration, innovations should aim to re-invent the way value is created and networked. Re-inventing value creation relates to the underlying foundation of value-creating process through S-D logic (Vargo and Lusch, 2008). Value creation occurs when a potential resource is integrated or turned into a specific use. These integrated resources can be of private (e.g. self, friends, family), market (from other entities, through economic exchange), or public (collective access from communal and government sources) (Vargo and Lusch, 2011). Integration of these resources provides new opportunities for the creation of new potential resources and forms the basis for aligning resource and values that enables and direct resource integration, value co-creation and thus value in context (Vargo and Lusch, 2008). The paper deals with the mechanisms as well as managerial challenges behind service innovation and resource integration for new business models.

The study is focusing on assessing how resources are integrated and how value is co-created and within the service system for a new business model. A business model is describing the value logic of an organization in terms of creating and co-creating value (Fielt, 2011). This paper is of service innovation, resource integration and business models for sustainable business model innovation based on service logic; to deeply asses and understand the complexity and the needs for coordinated action for coherent system for creating value to the customers. The strategic focus is Volvo Bus Corporation (VBC), based on three different public transit cases are developed from Gothenburg- Sweden, Cape Town-South Africa, and Jakarta-Indonesia, to expand and create new services contracts in the already existing markets.

The paper is structured as follows; first descriptions of the different theoretical platforms based on service research, the service-dominant (S-D) logic and business model followed by the empirical study. The case study of VBC to deeply and empirically exploring the best practices, the challenges on policies implementation and re-shaping of the already installed service systems, processes technologies and challenges. This is done by selecting best practice cases from VBC and by integrating to our findings from multiple case studies and narratives. This creates an understanding to analyzing the shift towards integrated, institutionalized and governed new business model and
strategies through resource integration for value co-creation with the customers. Section three describes the research methodology, and section four presents our discussions, following with conclusion and recommendations for future research.

Theoretical framework

Service innovation and business models

Innovation is essential for sustainable achievement (Nidumolu et al., 2009). The concept of innovation is multifaceted. A service innovation may not only involve new services, but also require new technology, new networks and new procedures. Moreover, such innovations can be radical or incremental, and can be based on utilitarian principles or on experience. Service systems can promote both excellence and innovation (Rubalcaba et al., 2010). Service innovations are based on customer-focused S-D logic whereby value is co-created with customers who are resource integrators (Baron and Harris, 2008). The process consists of the actors who use its resources for the benefit of the other party. This implies that both the service provider and the customer are part of the value creation; together they integrate resources in order to co-create value (Gummesson, 2008). Value is co-created through this resource integration (Vargo and Lusch, 2008). These integrated resources can be private (e.g. self, friends, family), market (from other entities, through economic exchange), or public (collective access from communal and government sources) (Vargo and Lusch, 2011). Integration of these resources provides new opportunities for the creation of new potential resources. However, without a well-developed business model, innovators and producers will fail to either deliver – or capture value (Teece, 2010) and co-create value (Vargo and Lusch, 2008). This is particularly realistic for business enterprises that implicitly and explicitly describe their business model based on the design or architecture of the value creation, delivery, and capture mechanisms it employs (Teece, 2010).

There are many potential sources of such service innovations. In this regard, Sundbo (2010, p. 281) notes that the complex character of service means that many actors can be involved. Service systems promote both excellence and innovation (Rubalcaba et al., 2010). They are complex systems that dynamically configure access to resources (people, organizations, technology and information) to interact with other service systems and mutually create and capture value (Spohrer et al., 2007). Service systems interact via types of value propositions (internal and external business models) that connect them into vast service networks. Value networks form service systems that —survive, adapt, and evolve through exchange and application of resourcesl (Vargo et al. 2008, p. 146). The network is the basic locus of innovation and the principal unit of analysis in business and marketing (Vargo et al., 2008).

Business model research is nothing completely new. Its origin can be traced back to early management research (e.g., Drucker 1954). Business models gained new momentum with the rise of information and communication technology. Business models have become a potentially powerful concept for both academics and practitioners. The most general definition is that a business model represents an organization’s underlying core logic and strategic choices for creating and capturing value (Shafer et al. 2005).

The performance of business models depends on the internal consistency among the business model dimensions (Zott and Amit 2008). Internal consistency is achieved, if the dimensions are aligned in congruent and mutually reinforcing way (e.g., Mintzberg 1979). Relevant dimensions include the value proposition, the key activities, customers, revenue mechanism, key partners, key resources, the cost structure and so on (e.g., Osterwalder and Pigneur 2010, Teece 2010, Zott and Amit 2008).
Business models unlock the value potential of new technologies and convert them into sustainable outcomes. In more detail, business models contribute to market-based approaches in different ways. Firstly, business models can accommodate social and economic goals into consistent, overarching strategic goals (Thompson and MacMillan 2010). Business model thinking enables organizations to create a symbiosis between economic return and social and environmental objectives. Business models are either investigated from static or transformational view. The static view raises the question—What types of business models do exist? Each model maintains a consistent alignment among the business model dimensions. In our study we assessed service businesses that can be classified into—service subsidization model, —fee-for-service model, —organizational support model, etc. (Alter, 2006). The transformational view raises the question—How do business models evolve?, but little research has been conducted so far on that question (Zott et al. 2011). A noteworthy exception is Demil and Lecocq’s (2010) investigation of business model evolution. Business model evolution is defined as a process involving deliberate and emergent changes in and between permanently linked core dimensions of business models. Such business model evolution can only succeed if a ‘dynamic consistency’ precedes the above-mentioned internal consistency. Dynamic consistency ensures that a modification in one dimension forms an alignment with deliberate changes in the other dimensions. Changes in the value creation might, for example, subsequently require changes in value capturing. These changes need to be balanced in a way that the dimensions remain consistent, congruent, and mutually reinforce each other. Achieving dynamic consistency needs organizations to anticipate, formulate, and implement change sequences and modifications in the business model dimensions (Ibid).

Good business models could drive service innovation. Business model can be described as the value logic of an organization in terms of how it creates and captures customer value (Fielt, 2011). The focus on capturing customer value in describing business models is related to Johnson (2010) and Teece (2010). Even though, Osterwalder and Pigneur (2010) have wider definition by including delivering value. Most authors of business models are not very explicit about what they mean with value, most definitions seem to refer to mean ‘customer value’ (i.e. value for the customer). Customer value has to be related with co-creating value with the producer as argued in S-d logic (Vargo and Lusch, 2008; Lusch and Vargo, 2014). Co-creating value allows innovation by co-inventing customer solutions, which business model innovations have to be developed from strategies into tactics (Gebauer and Reynoso, 2013). Gebauer and Reynoso, (2013) argue for the need to emphasizing on value-in-use by focus on value propositions from the customers to allow innovations to co-evolve together with the design of the business model. In terms of multi-national enterprises (MNEs), they should apply a set of methods accelerating user innovations (Ibid). As for many manufacturing companies the share of turnover and profit that comes from service is increasing and it is necessary to developing new business models (Teece, 2010; Fang et.al. 2008; Ng, et. al., 2009).

The existing research informs our conceptual framework. We assume that an organization attempts to bring their services to retain customer over longer of period by having good relationship and increase their market share.

Our framework combines the transformational view on business models and the need to keep a dynamic consistency among the business model dimensions. We use four business model dimensions: customer identification, customer engagement, value creation, and value capture (Baden-Fuller and Haefliger 2013). Customer identification addresses how organizations identify the users, beneficiaries, and customers for water and sanitation services. Customer engagement is about sensing what customers actually desire. Customers, especially in the case of B2B, have economic, social, and environmental desires. These desires can be either addressed in a standardized (or one size fits all) or
customized way (Ibid). Value creation links customer identification and customer engagement with value capturing. This connection describes how the organizations and their customers co-create value. It includes aspects such as internalizing and externalizing of value creation activities (Sanchez and Ricart 2010). It also refers to the role of customers in terms of being passive or active value co-creators. Value capturing goes beyond the labels such as financing, monetizing, or pricing. Value capturing covers revenue generation through different business models. In this paper, we have looked to three types of business models:

- Transaction-based business model
- Relationship-based business model
- Performance-based business model

We see the identification of the different elements of the business model: the value proposition, business logic, key activities and key resources, not only as part of the business model definition, but as part of the business model framework, see table1. A framework operationalizes the definition and makes it more concrete and specific. This creates some flexibility as there can be multiple, different specific frameworks while adhering to a single, generic definition. This caters for the use of the concept for multiple purposes and in different contexts, and the development of the concept over time.

Table 1. Frame work of Business model synergy for operationalizing different elements.

<table>
<thead>
<tr>
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<th>Transactional model</th>
<th>Relationship-based model</th>
<th>Performance-based model</th>
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<tbody>
<tr>
<td>Value proposition</td>
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<td>Business logic</td>
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<td>Services</td>
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<td>Key resources</td>
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Research methodology

Qualitative research methodology and case study research method is applied in this study. The empirical setting includes different cases from VBC. The three different public transit cases are developed from Gothenburg-Sweden, Cape Town-South Africa, and Hamburg-Germany. The focus is Volvo Bus Corporation (VBC) based on these three different case studies around the globe to understand the service system and developing a SBM.

The selection of these case studies is to make a comparative study and assess the different maturity. The research materials will be collected through primary and secondary data sources: through focus group, observation, database (VBC), published and unpublished documents, library database, Internet and other sources. Focus groups are chosen as a main source of primary data materials. Focus groups are used to provide the enough research materials as a —context of discovery (Hunt, 1991) and high validity Krueger (1988). In designing the process, we followed the procedure suggested by Morgan (1988). The obtained materials will be analyzed through a within and cross-case analysis (Eisenhardt,
The cases are analyzed based on the description and understanding, and interpretation of the research material. Our aim is at developing a business model based on the attempts of public transit service providers to increase the usage of public transit services. The sampling of urban regions and public transit service providers will be discriminative. We were looked as sample best practice and emerging cases on public transit services until recurring patterns on the business models emerge (Strauss & Corbin, 1990). Following Bowen’s (2008) argument that it is insufficient to state that sampling was concluded once saturation was reached. The collected materials will be analysed in accordance with the procedures suggested by Strauss and Corbin (1990). The obtained materials will be analyzed through a within and cross-case analysis (Eisenhardt, 1989). The cases are analyzed based on the description and understanding, and interpretation of the research material. Our aim is at developing an innovative business model. The cases will be assessed until saturated; this will be confirmed by different primary feedback on the analyzed data and made sense on the basis of prior research (Ibid). More specifically, different maturity means that regions vary in the way they address value co-creation and resource integration. The variation in maturity allows developing a business model.

Discussion/Findings

The study will reveal that service innovation is a way of building a coherent SBM embedded in social and environmental contexts for integrating resources and creating value. This leads towards new understanding and strategies of the shift from and beyond providing buses to providing services and to new sustainable business models. The study is not to be the design of a new system, but to utilize the influence of the demand for sustainable system, which has thus contributed to the service research and sustainability discussions. The integration of Value co-creation, resources and business models, is essential to understand the business model innovation. The integration of social and environmental embeddedness puts in context the norms and values of a dynamic company culture contribute to value co-creation and a deeper understanding of value-in-context. The business model has to be built on the integration of different models and ways of thinking, innovation and resources. This allows organizations to move from the very static to flexible and more integrated approach. In assessing the already existed business models, we looked to the shift from static business models, which are control based, towards more flexible ones and integrated. An organization can have multiple business models, either in time (sequentially) or at the same time (simultaneously). While outside the scope of the current discussion, this requires understanding of synergies and conflicts between business models and creates a need for innovative business model with clear portfolio management and sustainable business model. Gebauer and Reynoso, (2013) argue for the need to emphasizing on value-in-use by focus on value propositions from the customers to allow innovations to co-evolve together with the design of the business model.

For many manufacturing companies the share of turnover and profit that comes from service is increasing and it is necessary to developing new business models (Teece, 2010; Fang et.al. 2008; Ng, et. al., 2009). The main reason for this choice is survival; a strategy to meet the tough competition. This led these manufacturing companies to look and adopt new strategies and business models. It is important to look, empirically, at different cases to understand the shift in the business models, Value co-creation and resource integration. The strategic focus of Volvo Bus on Africa and Indonesia based on BRT thinking and the challenges of doing business and provide sustainable solutions also needs a deeper understanding and new models. The engagement of VBC will allow looking deeply for best practices of the already installed bus or other public transit systems, processes and methods; and the demand towards the service systems and complexity of the future public transit in a global context.
These systems, practices, processes, and methods based on different cases will be a foundation for deeper studies and expanding my understanding and generalizations. We also assessed the leeway that the cities with run by public-private partnership innovative business models. Business models are not about co-creating value for financial revenue models that contribute to the economic bottom-line of the organizations. They are also about the broader perspective including also social responsibility and environmental sustainability. In this paper, the focus is more on relationship based business model. It is essential to assess the synergy of Transactional, Relationship-based and performance based business models, as indicated in tab. 2, below.

Table 2. The synergy of Transactional Relationship-based and performance based business models.

<table>
<thead>
<tr>
<th></th>
<th>Transactional model</th>
<th>Relationship-based</th>
<th>Performance-based</th>
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<tbody>
<tr>
<td><strong>Value proposition</strong></td>
<td>Fast reactions to product failures</td>
<td>Prevention of product failures</td>
<td>High-quality, reliable and energy efficient passenger transport capacity.</td>
</tr>
<tr>
<td></td>
<td>Reasonable product prices</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Business logic</strong></td>
<td>Reasonable product prices combined with high margins for spare parts and repair</td>
<td>High-quality products combined with fixed prices for service contracts</td>
<td>Pay-per-use or performance based pricing. No need to tie up capital through full lease of buses</td>
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<td></td>
<td>Unscheduled service activities require fluctuation in service demand, maximizing</td>
<td>Schedules service activities (capacity utilization), minimizing time at the customer (e.g. exchange of modules instead of repair of components)</td>
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<tr>
<td></td>
<td>time at the customer</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>Spare parts</td>
<td>Service contracts</td>
<td>Fleet management.</td>
</tr>
<tr>
<td></td>
<td>Repair services and inspection</td>
<td>Preventive maintenance</td>
<td>Optimal service planning.</td>
</tr>
<tr>
<td></td>
<td>Trouble-shooting &amp; diagnose services</td>
<td>Process-optimization</td>
<td>Skilled technicians and other maintenance staff.</td>
</tr>
<tr>
<td><strong>Key resources</strong></td>
<td>Planning and forecasting of spare parts demand</td>
<td>Condition monitoring</td>
<td>Risk-sharing, incentive models and KPI:s as basis for customer collaboration</td>
</tr>
<tr>
<td></td>
<td>Spare parts and repair center close to customers</td>
<td>Risk estimation and pricing</td>
<td></td>
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<tr>
<td></td>
<td>Service technicians act as reliable troubleshooters</td>
<td>Regional spare parts and service centers</td>
<td></td>
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<tr>
<td></td>
<td>Technical competencies</td>
<td>Services as an independent strategic business unit for services</td>
<td></td>
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<tr>
<td></td>
<td>Cost or product center in product division</td>
<td>Service technicians act as performance enablers</td>
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<td></td>
<td></td>
<td>Communication &amp; behavioral competencies</td>
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</table>

The paper makes an original contribution to the study of public transit by explicitly linking the adoption of SBM and service innovation based on sustainability, and resource integration/value co-creation.
References


Fielt, E. (2011), Understanding business models, Business Service Management whitepaper volume 3, Brisbane, Australia: Smart Services CRC


Value co-creation in a complex service system: a case of building robots to provide service

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The main objective of this study is to assess and analyze value co-creation in a complex service system from a human-centered point of view. In fulfilling the ambitious goal of integrating cooperative and human-friendly robots, value co-creation should innovate service through the re-invention of the creation of value between robots (i.e., the entire service system) and customers. Solving the upcoming challenges of co-creating value in the service sector is related to the method we create well-being in a transformative manner. This method could also use the perspective of service innovation in the complex environment by integrating multiple services that can be adjusted to the specific needs of customers, such as the relatively young and healthy seniors.

This study is explorative and built around the following concepts based on transformative research: value co-creation, complexity, service innovation, and transformative service. This illustrates these concepts with the case of building robots to provide assistance during activities, such as walking and other physical activities, in an old age house. This study also focuses on describing the challenges of understanding service innovation in the complex service system of service offering toward co-creating value. Such challenges are exemplified from the technical point of view (e.g., multipurpose design concept, human-in-the-loop control, etc.) in the development of a human-friendly walking assistive robot vehicle designed to support the walking activity of relatively young and healthy seniors.

This study applies the perspective of complexity in service innovation to the case of adding robots in co-creating value. Our findings replicate the theoretical contributions of elements for conceptualizing value co-creation and service innovation in the service systems by adding the roles of robots, namely, interaction between care receiver and robot, as well as care receiver and caregivers, among others. The current study reveals the challenges of transformative service thinking in the human-centered complex service systems in the manner in which service is innovated and understood, as well as the role of integrating services and well-being. This study aims to describe the challenges of understanding complexity and the role of robot services from the service research perspective.

Furthermore, this study makes an original contribution to the current discussions on service research toward transformative service and complexity based on services that co-create value. Future research in this area should focus on generalizing the present findings by studying the integration and understanding of service research and transformative service in other empirical settings and conceptualizations.

Keywords: value co-creation, service innovation, complexity, transformative services, robot, service systems

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1. Introduction

The share of individuals aged 65 and above will increase from 8% of the total world population in 2015 to almost 18% by 2050, and in the OECD countries from 16% to 27%, according to OECD report (2015). In Sweden, it is expected that about 25% of Swedes population will be older than 65 years old by 2060 (Wilén and Ljungberg, 2009). Public expenditure and for pensionaries and old care has been increasing. Besides, government’s gross financial liabilities (debt) have increased sharply after the financial crises of 2007/08 from 55% of GDP in 2007 to 88% in 2014 on average across OECD countries (Ibid). This has a direct relation to the way we manage our resources and the way we create value. The limits to the world’s resources made many to argue for prosperity without growth (Jackson, 2009). In this sense, business environments are constantly evolving and becoming more complex. Quality of life is among the many issues challenging modern management theories and practices, especially in the context of increasingly aging society. Even though, this has created many new opportunities, new ways of living and innovation is not deeply considered for creating societal wellbeing (Anderson et. al., 2012). However, to really fulfill the ambitious goals for sustainability; innovations should aim to re-invent the way value is created co-created and networked. In particular, robot technology is expected to be an important key to find solutions to these problems. For this purpose, roboticists have been developing assistive robots for health care and welfare applications to improve the security, independence and quality of the elderly so they can stay in their homes longer (Bertmar, 2012; Solis and Takanishi, 2011). As a consequence, this opens the opportunity to free up time so that medical staff can provide care for the patients who really may need a human support (Ishii et al., 2009; Yohan et al., 2011).

Re-inventing value creation relates to the underlying foundation of value-creating process through resource integration (Vargo and Lusch, 2008). Value creation occurs when a potential resource is turned into a specific use. This means that value creation relies on resource integration across a value network consisting of firm, network, partners, and customers (Ibid; Edvardsson, et al., 2011). These networks are forming service systems that survive, adapt, and evolve through exchange and application of resources. A value network development that departs from existing innovative and complex service systems would enable to elaborate the transformations in the way customers, operators and authorities integrate their resources (Enquist and Sebhatu, forthcoming). In this illustration, for integrating robots, value co-creation should aim on innovating service through re-inventing the way value is created between robots (integrated service system), care givers, customers and health care infrastructure. Solving the upcoming challenges of co-creating value in the service sector is related in the way we create well-being in a transformative way, which could also use the perspective of innovation (Adner and Kapoor, 2009) in the complex environment by integrating multiple services which can be adjusted to the specifics needs of the customers. Integrated system combines many of these service system features with flexibility, which can be developed incrementally, with each stage keyed to demand characteristics and the availability of resources and networks. Advancing a particular condition of innovation to solve everyday problems could be achieved by solving these challenges.

The main aim of this paper is to assess and analyze how to co-create value in a complex service system. The objective is to look deeper on how innovative way with varied capabilities integrates different resources to co-create value. The main theoretical challenges are of understanding and integrating value co-creation and innovation to secure sustainable businesses founded on the principles of complex systems. Understanding how value is —co-created by what we will call —integrated systemsl in specific contextual settings is deemed essential in securing embedded innovation, which can thus ultimately overcome the major challenges of the aging society.
Understanding these challenges is an important first step in being able to reap the benefits of future innovation integrated into service systems across the complex service system. Accordingly, our research question can be formulated in the following way: how to co-create value in a complex service system by solving the upcoming challenges of co-creating value in the service sector, which is related in the way we create well-being in a transformative way? To answer this research question, we begin with an overview of research on the theoretical foundations. It is aiming, based on our case studies, at understanding the interdependencies between value co-creation and how the Integrate System contextualizes value with customers and other stakeholders.

2. Theoretical framework

Our research framework benefits from existing theoretical contributions to the notions of sustainability, service innovation, value creation, and complexity. Edvardsson et al. (2014) assert that service thinking is grounded in a company’s core values and the triple bottom line of economic, environmental, and social perspectives for co-creating value. As we noted previously, innovation is a multifaceted concept, such that it might entail new services, new technology, new networks, and new procedures, as well as radical or incremental forms (Dewar and Dutton, 1986) and utilitarian principles or experience as bases, which might promote both excellence and innovation (Rubalcaba et al., 2010). Friedman (2008) also argues that innovation, not regulation, can best solve the environmental crisis. According to an S-D logic, value is co-created with resource integrators, or customers (Baron and Harris, 2008), because these actors use their resources for the benefit of the other party. Both the service provider and the customer participate in value creation; only by integrating their resources can they co-create value (Gummunsson, 2008; Vargo and Lusch, 2008). The integrated resources might be private (e.g., self, friends, family), market-based (from other entities, in economic exchanges), or public (collective access from communal and government sources) (Vargo and Lusch, 2011). Their integration also provides new opportunities for the creation of new resources. In this regard, Sundbo (2010, p. 281) notes that the complex character of services necessarily engages many different actors and trajectories, creating space for innovative combinations of societal values and priorities, as well as an arena for engaging different stakeholders and achieving resource integration. The resulting complex service systems (Rubalcaba et al., 2010) dynamically configure access to resources (e.g., people, organizations, technology, information), interact with other service systems, and mutually create and capture value (Spohrer et al., 2007). Service systems interact through value propositions (internal and external) that connect them to vast service networks.

When value is co-created with customers (Lusch and Vargo, 2014), the notion of ‘customer value’ expands to include not only service value but also value linked to values. Akaka and Vargo, the context of service obtained a broader meaning by viewing encounter and service escapes from an ecosystem perspective: —It put service at the forefront of social and economic research because all exchange is essentially service driven! (Akaka and Vargo, 2015, p. 460). The ecosystem view is also related to innovation and value creation (Vargo, Wieland and Akaka, 2015). The researchers stated that —value is created through multiple levels of interactions: micro (e.g., service encounter), meso (e.g., organizations, —industries,l and brands communities), macro (e.g., societal) (ibid, p. 67). The service ecosystem is based on systemic beliefs. Vargo and Lusch (2014) utilize an actor-to-actor approach. We will use the service ecosystem as a tool for interpreting a real context; however, we must further develop the service ecosystem idea for our purpose.
3. Research methodology and empirical study

In particular, different walking-aid robots have been proposed during the last decades for both old age people and others (Fukuda et al., 2015; Hirata et al., 2004). In particular, the walking-aid robots can be classified into two main groups according to the mobility factor (Fukuda et al., 2015): active-type walkers driven by a servo motor (Hirata et al., 2003) and passive-type walkers driven by a servo brake (Hirata et al., 2004). Yu et al. (2003) proposed the PAMM system together with a smart cane robot with a relative small size but the maneuverability is compromised by the cost. Fukuda et al. (2015) introduced an intelligent cane robot consisting of a stick, a group of sensors for recognizing the user's intentions and an omnidirectional mobile platform. However, the physical support is provided by means of a fixed length and stiffness aluminum stick and cannot be customized depending on the needs of the specific user (required level of physical support depending on the undergoing daily activity) and environmental conditions (indoor or outdoor). On the other hand, in the research field of cognitive psychology, there is a growing literature on embodied cognition (Clark, 1999). From this, several researchers have focused on enabling robots to display cognitive capabilities while interacting with humans (Breazeal, 2004). Recent progress in physical Human Robot Interaction (pHRI) research showed in principle that human and robots can actively and safely share a common workspace. The fundamental breakthrough that enabled these results was the human-centred design of robot mechanics and control (De Luca et al., 2007). Currently, assistive robots have been designed with complex mechanisms which are difficult to customize to the specific needs of elderly people (Kazerooni, 2006).

From those researches, a special focus has been done in terms to increase the level of multimodal interaction, sensing and control to facilitate the perception of the environment for a better guidance and provide a static physical support to avoid falling down. However, dynamic physical support (e.g. add to the user/task needs), the adaptability to the user/task needs (e.g. human-in-the-loop control), and the multipurpose design concept (e.g. provide assistance/support to the care givers/elderly) have been scarcely studied.

For this purpose, Solis et al. (2015) has proposed the development of a multi-purpose human-friendly robot vehicle capable to provide of providing walking-support to the elderly as well as assistance for carrying-medical tools to care givers. This research aims to incorporate and develop the concept of robotic human science (Takanishi, 1995) and to enable its application in a multipurpose human-friendly robot for physically assisting elderly (e.g. walking-support), as well as assisting care givers (e.g. carrying-medical tools). On the one hand, models of human motor control and learning, as well as cognition should allow creating truly interactive human-friendly robots; on the other hand modelling human-friendly robots allows for reverse engineering and scientific understanding of human motion, perception and cognition. The focus of the research is embodying perceptual (sensing the incoming stimuli), cognitive (processing the incoming stimuli) and bodily-kinesthetic (response to the incoming stimuli as a result of combining perceptual and motor skills) capabilities. In particular, two assistive robots vehicles currently under development to be integrated into a single platform: an intelligent carrying-medical tools robot vehicle (Solis and Teshome, 2014) and a human-friendly assistive robot vehicle for supporting physically elderly (Solis and De la Rosa, 2015).

The development of a human-friendly robot vehicle for carrying-medical tools (iCAR) was presented in Solis and Teshome (2014). iCAR is composed by a mobile platform with on board controller and two actuated wheels, a stroller with four passive wheels, a 3D-RGB camera (Microsoft Kinect), a mobile computer for sensor signal processing and recognition of gestures as well as a wireless module for communication between the mobile computer and the mobile robot. As first approach; we have focused in embodying a gesture-based recognition module into the iCAR for carrying-medical tools.
A total of eight gestures (the reader should consider the Emergency-stop gesture was split in two different ones) were empirically determined so the user can command the iCAR in order to carry items from one spot in the environment to another. The considered gestures are: engage, follow, stop, come-left, come-right, disengage, emergency-stop-h and emergency-stop-v. A time-delay neural network (TDNN) was designed and implemented for the 3D gesture recognition. A successful gesture recognition percentage of 91% was obtained (Solis and Teshome, 2014). On the other hand for the navigation control, behavior-based control architecture has been considered. In particular, the proposed control is composed of two levels: high-level control and the low-level control. The high-level control paradigm is essentially composed of the fuzzy logic behavior-based control (for interpreting and execution of user commands). The high-level control is further split into the supervision sub-level and the Behavioral sub-level to better structure the sub-problems involved within fuzzy behavior-based control architecture. On the other hand, the low-level control consists of a couple of two-degrees-of-freedom PID controllers for robot actuator speed control. Based on the proposed control system, the iCAR was able to correct its posture in order to follow the subject after a transitional period of time. After the transitional period of time, the robot was able to smoothly follow the user while walking straight. However, while the robot user turned around the patient’s bed, the turning motion of the robot presented some undesirable oscillations at the end when the user stops his motion. (Solis et al., 2015) Based on these capabilities, the iCAR has the potentiality to be used for different purposes (co-creating value) without re-programing the robot’s function but depending instead on the 3D gesture commands given by the care givers.

On the other hand, the human-friendly WALKing assist robot vehicle (hWALK) has been designed to provide physical support to the elderly while walking (Solis and De la Rosa, 2015). The hWALK is composed by a mobile platform with on board controller and two actuated wheels, a commercial available 3-DOFs desktop haptic interface (Novint), a mobile computer used for computing the force feedback processing and the wireless module for communication between the mobile computer and the mobile robot. The principle for physical support is described as follows. If one considers $d_z$ as the distance between the ground and the gripper of the haptic interface; under even conditions of the ground, the distance will be kept constant so that no force feedback support should be exerted to the user during the walking motion ($F_z = 0$). However; under uneven ground conditions, in order to keep the distance $d_z$ constant, the HI should be programmed to exert force feedback support ($F_z ≠ 0$).

The control system implemented for the 3-DOFs desktop haptic interface is composed by 4 modules (Solis and De la Rosa, 2015): gravity compensation, force feedback processing, velocity estimation and wireless communication module. On the other hand; the control system for the two-wheeled inverted pendulum mobile robot is composed by 2 modules (Solis and De la Rosa, 2015): the PID controller (custom linear controller implemented for conventional industrial robots) and the wireless module. On the other hand, an improved velocity control for the two-wheeled inverted pendulum robot has proposed by adding a linear-quadratic regulator (custom optimal controller implemented for advanced industrial robots) as a compensator for the wheel angular velocity to the PID controller (Solis, 2016). In order to validate the feasibility for providing physical support under dynamic conditions, an experiment setup has been designed in order to simulate a bump typically found in outdoor environments (Solis, 2016). The bump was constructed with wood at our mechanical workshop (with an inclination angle of 6.85 degrees with a length of 50 cm and a width of 50 cm). Seven healthy volunteers (between 24 to 48 years old) were requested randomly to carry the experiment. For this experiment six males and one women were shortly introduced about the aim of the experiment and each of them were allowed to try the hWALK a maximum of two trials before the actual experiment. Based on the experimental results, for example we could verify that subjects 1, 4, 5, and 6 didn’t present any issue of instability while observing the angular rotation of the chassis with
respect to the ground (Solis, 2016). Based on these capabilities, the hWALK has the potentiality to be used for different purposes (co-creating value) without re-programing the robot’s function but depending instead on the costumer/environment needs (e.g. elderly persons with walking difficulties may have vision difficulties to identify the ground conditions, so that the proposed system will not only be capable to sense and detect the ground conditions, but also it will be able to provide force feedback to the elderly for better understanding the ground conditions and of course for providing walking support) as well as other alternative uses for physical therapists (e.g. based on the recorded data from the embedded sensors in the hWALK, the progression of the walking disorder can be analyzed without the need of expensive medical equipment, etc.).

4. Discussion and conclusion

Re-inventing value creation relates to the underlying foundation of value-creating process through resource integration (Vargo and Lusch, 2008). Value creation occurs when a potential resource is turned into a specific use. In this paper we looked into how to co-create value in a complex service system from a human centered point of view. The value co creation aims on innovating service through re-inventing the way value is created between robots (the whole service system) and customers. The way a person interacts with a human-friendly robot is quite different from interacting with the majority of industrial robots today. Modern robots are generally viewed as tools that human specialists use to perform hazardous tasks in remote environments. In contrast; human-friendly robots are often designed to engage people in order to achieve social or emotional goals. The development of socially intelligent and socially skillful robots drives research to develop autonomous or semi-autonomous robots that are natural and intuitive for the average consumer to interact with, communicate with, work with as partners, and teach new capabilities (Solis et al. 2004; Dautenhahn et al., 2002; etc.). In addition, this domain motivates new questions for robotics researchers, such as how to design for a successful long-term relationship where the robot remains appealing and provides consistent benefit to people over weeks, months, and even years. The benefit that human-friendly robots provide people extends far beyond strict task performing utility to include educational, health and therapeutic, domestic, social and emotional goals (e.g., entertainment, companionship, communication, etc.), and more.

Even though the market size is still small at this moment, applied fields of human-friendly robots (e.g. assistive robots) are gradually spreading from the manufacturing industry to the third industry. Several companies have introduced assistive robots into the market. Some examples in Sweden are the GiraffPlus telecare platform designed to help the elderly to stay in touch with care givers, relatives and friends (Giraff Technologies AB), the robotic eating device Bestic designed for persons with reduced or no capability in their arms or hands (Bestic AB), etc. Solving the upcoming challenges of co-creating value in the service sector is related in the way we create well-being in a transformative way, which could also use the perspective of service innovation in the complex environment by integrating multiple services which can be adjusted to the specifics needs of the customers, e.g. relative young and healthy seniors. On the other hand, most of the research has been mainly focused in developing assistive robots for the elderly in terms of telepresence robotic platforms designed for maintaining the elderly social contacts (Cosgun et al., 2013), wheeled walker platforms designed for turning away from obstacles and prevent elderly from accidents (Palopoli et al., 2015), pet-like robots designed for raising the quality of life among people with dementia in the later stage of their illness (Asplund and Gustafsson, 2013).
References


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The impact of service quality towards service innovation for sustainable mobility

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The main objective of this study is to assess and extensively understand the effect of service quality on innovating service for sustainable mobility. This study uses the specific contextual setting of car sharing to understand the manner in which improving service quality can contribute by innovating sustainable service. Car sharing is rising as a growing business opportunity and as a solution for sustainable mobility that is embedded on social and environmental perspectives. However, we think that investigating its service dimensions from the service quality perspective is important to innovate service and enhance sustainable mobility, in addition to its promise of personal convenience by co-creating value. The focus is made on service quality and service innovation for sustainable mobility toward value co-creation within the service system. Value creation and co-creation in management thinking have created the prevailing business practices, service quality improvement, and service innovation.

This study is exploratory and is built around three concepts, namely, service quality, service innovation, and sustainable mobility through value co-creation. This research illustrates these concepts based on the investigation of car sharing in three Italian cities, namely, Rome, Milan, and Florence. Our study focuses on the adoption of car sharing to foster service innovation in the mobility field. In investigating the implementation and diffusion of car sharing, a qualitative research approach based on in-depth interviews and territorial analysis is adopted by building a representation of the transport services in these cities.

This study demonstrates the manner in which improving service quality contributes to creating an innovative service toward enhancing sustainable mobility. The current study reveals the effect of service quality on service innovation as a driving force by improving the emergent car sharing services in urbanized cities and by understanding the role of car sharing in the intermodal public transport services from the cities’ perspective by embedding social and environmental perspectives. This study also describes the need for understanding the role of car sharing services in sustainable mobility by analyzing the mobility, social, and environmental challenges. The positive effect can increase the role of car sharing on intermodal mobility by facilitating the use of the automobiles for short distances to reach public transport connections by innovating service. Hence, this study contributes to the transformative service research on creating societal well-being.

Furthermore, this study makes an original contribution to current discussions on sustainability and service research toward transformative service by focusing on service innovation and service quality, as well as explicitly linking the adoption of service quality factors to the manner in which we innovate service by co-creating value in urbanized cities. This study is based on service innovation, public transit services, and resource integration and value co-creation embedded on transformative service perspectives. Future research in this area should focus on generalizing the present findings by studying the development and integration of service quality, service innovation, and public transit services thinking based on the sustainable mobility of car sharing in other empirical settings and conceptualization (e.g., cities outside Europe).
In a context of increasingly rapid urbanization there are many challenges for aligning business, earth, and humanity (Hart, 2010). Urbanization could also be a reason for sustainable way of living and a quality of life with less waste, less use of resources, less greenhouse emission, and more energy efficiency based on the experience of larger cities, according to Florida (2010). In the globalized world, urbanization has places pressure upon cities that challenge their ability to promote, develop, provide and support services (Léautier, 2006). The main aim of this paper is to assess and make a deeper understanding of the impact of service quality towards innovating service for sustainable mobility. This paper uses specific contextual setting of car sharing to understanding how improving service quality can contribute by innovate sustainable service. Car sharing is on the rise as a growing business opportunity and as one of the solutions for sustainable mobility, embedded on social and environmental perspectives. However, we think it is important to investigate its service dimensions from the service quality perspective to service innovate and enhance sustainable mobility, besides its promise for personal convenience by co-creating value. The focus is on service quality and service innovation for sustainable mobility towards value is co-creation within the service system. Value creation and co-creation in management thinking have created the prevailing business practices and service quality improvement and service innovation.

Service quality thinking to a great extent lies in the product quality and customer satisfaction literature (Brandy and Cronin, 2001). Service quality management is considered one the most important aspect of the organization for enhancing business performance and creating value (Sebhatu, 2010). This has underscored quality improvement initiatives that result in sustainable competitive advantage. Gummesson (1994) proposed the term green service quality, and some other researchers have described sustainable quality management based on the implementation and evaluation of TQM for responsible management. However, the wide array of SQ approaches still needs to integrate the values-based view of improvement and efficiency. A common definition of service quality is that service should correspond to the customers' expectations and satisfies their needs and requirements (Edvardsson, 1996). The definition is customer orientated. To detect and understand non-verbalized customer needs, a sense of insight, a functional dialogue with the customer and an understanding of his or her situation are required (ibid.; Grönroos, 1984; Parasuraman et al., 1988; Gummesson, 1994; 2008). Service quality is linked to activities, interactions, and solutions to customer problems (Sebhatu, 2010). One of the main advantages of integrating service quality (Schneider and White, 2004) as part of developing processes is creation of value in terms of quality and organizational sustainability (Gummesson, 1994; Enquist et al., 2007).

The role is to improve services and the provision of mobility, which is safe, integrated, orderly, smooth, comfortable, economical, efficient, effective and affordable by the community (Gebauer et al., 2010). It can be described as a flexible and rapid transit mode that combines stations, vehicles, services, running way, and Intelligent Transportation System (ITS) into an integrated system. Sustainable Public transit as the goal of sustainable transportation is also to ensure that environment; social and economic considerations are factored into decisions affecting transportation activity (MOST, 1999). Public transit services take sustainable challenges for integrating environmental —Eco-Efficiencyl and social sustainability with inclusion of all stakeholders, to provide better service, and efficiency. The society and humanity stands for big challenges regarding climate and environmental crisis.

This paper has an exploratory nature. It is built around theoretical framework and the empirical study. The paper will adopt these theoretical concepts and apply in the study of sustainable mobility based on the investigation of car sharing in three Italian cities: Rome, Milan and Florence. Our study focuses on the adoption of car-sharing in order to foster service quality and service innovation in the sustainable mobility field. In order to investigate the implementation and diffusion of sustainable mobility a qualitative research approach is adopted; based on in-depth interviews and territorial analysis by building a representation of the transport services in these cities. The territorial analysis is focused on understanding the complexity of an area in relation to human activities and environmental characteristics are the main development factors. Human activities have a direct and indirect impact.
and influence on a territory (specific area) and its environment. The empirical study of the city Rome is the major study in this paper. The territorial analysis is conducted by describing the contribution of the urban public transport services in Rome. Accordingly, a survey is carried out by involving the citizens of Rome, depends on their use of public transport. The survey indicated that there is a remarkable difference in service quality between buses and metro. We have conducted a qualitative study based on in-depth interviews with public transport customers. In the next stage a structured questionnaire was developed. The survey was conducted from May to June 2016. A pre-test that involved 50 respondents was carried out. This pilot study has helped improve the comprehensibility and the comprehensiveness of the questions asked in the questionnaires. A 1-to-7-point Likert scale was used. Data collection was made through web-survey and face to face structured interviews. The partial least squares method (PLS-SEM) was chosen to analyze the data (Hair et al., 2012; Sarstedt et al., 2014). The software SmartPLS version 3.2.1 was used for the model estimation (Ringle et al., 2015). Furthermore, the importance-performance matrix analysis (IPMA) was used to identify improvement areas related to the provided service quality, overall satisfaction and loyalty of the Rome urban public transport.

**Expected results**

The paper demonstrates that improving the perception of the service quality of the urban public transport may help in breaking the norm by leading people to using the private car less and increase the use of other forms of sustainable mobility. Furthermore, the respondents seem to be willing to switch from their personal car to an intermodal way of mobility. Thus, the intermodal mobility seems to be a great challenge in the city of Rome, even if it is conditioned by the increase of the provided service quality by public transport. We are demonstrating, in this study, that how improving service quality contributes towards creating an innovative service towards enhancing sustainable mobility. The study reveals the impact of service quality towards service innovation as a driving force by improving the emergent car sharing services in urbanized cities, and understanding its role in the intermodal public transport services from the cities perspective by embedding social and environmental perspectives. This is also describes the need for understanding the role of car sharing services in a sustainable mobility by analyzing the mobility, social and environmental challenges.

Furthermore, the paper makes original contribution ongoing discussions on sustainability and service research towards transformative service by focusing on service innovation and service quality by explicitly linking the adoption of service quality factors to the way we innovate service by co-creating value in urbanized cities. This is based on service innovation, public transit services and resource integration/value co-creation embedded on transformative service perspectives. Future research in this area should focus on generalizing the present findings by studying the development and integration of service quality, service innovation and public transit services thinking based on sustainable mobility of car sharing in other empirical settings and conceptualization, for instance in cities outside of Europe.
Simulation emergency training services in the case of flood

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Floods are the most common natural disaster and have the highest effect in Thailand. Local authorities support emergency training services (ETSs) for their population because of the significant effects of a flood. ETSs provide high-quality educational courses in emergency care to the general public, businesses, industries, and civic groups. Traditionally, these courses are delivered through learning techniques, such as lectures, group discussions, and scenario-based group exercises, to effectively enhance the necessary knowledge and skills in responding to disasters. Behavioral responses to a flood emergency are dependent on many elements, including situations, environments, equipment, and properties. ETSs must provide courses in fixed elements, such as in specific situations, and use prepared equipment. Learners can face indeterminate elements, such as in specific situations, and use prepared equipment. Learners can face indeterminate flood situations in daily life, and training courses cannot provide training in specific situations for each learner. This situation makes the learners not think of the solutions by themselves. Many problems can happen during real emergency situations, such as failure to analyze situations, adapt to environments, and follow the training’s instruction for solving problems. To realize the flood situation, this study designs a service design architecture and a game flow for simulation emergency training services in case of flood (SETS:flood). SETS:flood is based on an emergency response game that contains a knowledge-based system for emergency training in flood situations, in which the system acquires knowledge from the manuals of several organizations to infer the behavioral response of learners in flood situations. This proposed service design architecture comprises several modules, namely, knowledge base, database, inference engine, evaluation, and user interface modules. The knowledge base module comprises emergency response knowledge stored as rules and ontologies. These rules are restrictions in emergency response activities. The ontologies in this module represent related concepts and relations, such as emergency kit, house, action, learner, and recommender. Learners play an emergency response game to motivate and investigate their behavioral response. An evaluation is designed to show the results of the learner’s behaviors shown in the simulated situation. These designed ETSs enable learners to comprehend themselves and to protect their properties in emergency situations. Furthermore, ETSs are designed for learning the behavioral response changes after learners perceive a new element of knowledge, that is, risk-benefit knowledge. This study discusses an approach used to manipulate the game service design of emergency response in the case of flood in the SETS:flood.

Keywords: game simulation, game service design, emergency training services, flood, emergency response, disaster

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1. Introduction

Emergency Training Services (ETSSs) are provided educational courses of actions in emergency care by experienced staffs. Several services, e.g., an emergency response service, a technical assistance, a
review of emergency plans, a waste management, are included in ETSs. Although ETSs have skillful and experienced staffs, the educational courses cannot assure the correctness of emergency response actions that they will not make any problems in real crisis situations. ETSs would be designed to help organizations and individuals improve personal skills to reduce the damage caused by natural hazards. Human needs a better understanding of environments to determine appropriate actions for coping with natural hazards. For example, in a case of flood, potential adjustments include bearing the loss, insurance, land elevation, structural works and public relief. The need for an improved understanding of the decision-making process in ETSs is urgent and is at the heart of systematic improvement of public policy (Slovic, 2000). People need to open themselves to further hazard from their variability and uncertainty. Moreover, the Emergency Training Service Design (ETSD) emphasizes to make people more open for crisis preparedness and responsiveness.

1.1. Aims and Organization

ETSs is designed for making learners more useful, usable, and desirable. During a real crisis situation, person feels excited and lack of consciousness in the situations outside of the lessons. Therefore, the learning in the emergency response actions is not enough. This paper focuses on a service design for learners in order to gain more understanding of hazards perception and the processes involved in balancing risks and benefits when doing emergency response actions in adaptive crisis situations. We point out to flood emergency response to be a prominent example in which the occurrences and damages are high in Thailand.

The organization of the paper is as follows. It begins with a brief overview of the leading normative and descriptive theories in the section 2. This section describes the theories on learning objectives, game service designs, and decision-making under risk. Then, section 3 represents the methodology to design an emergency response game. The last section is section 4 that is the conclusion of this paper.

2. Background

Disaster education is recognized as an important element in sustainable development. It also involves the enhancement and use of knowledge for protecting people and your properties. A study shown that an inadequate teaching of disaster reduction awareness and preparation repeatedly lead to have the loss of life and damage in all major natural disasters and that preparation through education is less costly than learning through tragedy (Clervaux, 2009). ETSs must be decided upon learning objectives and these objectives must be united into the goals of the learners. In most states, the learning system would decide the general objectives of education. Not only the general objectives, the outcomes of learning or the behavioral changes would be stated as objectives (Nolan Charles, 1953). Another way to state objectives is using abilities, such as emergency response ability. The theories of learning objectives, e.g., —Cognitive Abilities as Objectives (Guilford & Hoepfner, 1963), —Affective Processes and Outcomes as Objectives (Krathwohl, Bloom, & Masia, 1964; Krathwohl D. R., 2002), are examined. Furthermore, Theories of game service designs (Van Staalduinen, 2011; Peffers, 2007; Huynh-Kim-Bang, 2010) and decision-making under risk are also reviewed (Slovic, 2000; Simon, 1959; Kates, 1962).

2.1. Learning objectives theories

2.1.1. Cognitive abilities as objectives

The theory (Guilford & Hoepfner, 1963) claimed that human has 120 abilities in cognitive domain. An ability is a combination of an operation or process, a content, and a product. The
operations are major kinds of intellectual activities of processes. They consist of cognitive, memory, divergent production, convergent production, and evaluation. The contents are broad classes of information that consist of figural, symbolic, semantic, and behavioral content. The products are forms of information that consist of units, classes, relations, systems, transformations, and implications.

The ETS’s learners acquire an ability that combined from cognitive skill in operation dimension, behavior in content dimension, and implication in product dimension. Cognitive skill is the ability to understand, comprehend, discover, and become aware of information. Behavioral skill is information perceived as acts of people. Implications are prediction, inferences, consequences, or anticipations of knowledge. The ability, which learners of ETS acquire, gains from an awareness of situations to determine appropriate actions for coping with natural hazards. The ability to think appraisingly with several simulated risk situations is associated with emergency response actions. Emergency training courses combine abilities with behavioral content for learners to understand themselves and design related actions they should do in crisis situations.

2.1.2. Affective processes and outcomes as objectives

This theory (Krathwohl, Bloom, & Masia, 1964) orders and relates the different kinds of affective behavior that refers to the feeling aspect of behavior as internalization concept. Internalization is the process of incorporating something into one’s behavior as one’s own. Internalization processes consists of (i) receiving is the awareness of some phenomenon in the learner’s environment, (ii) responding is the actions from inner motivation with satisfaction, (iii) valuing is the acceptance of the goals and commitment to the goals, (iv) organizing is the process of a learner to develops something to do for goals’ achievement, (v) characterization by a value is the process to indicate into a generalized set to characterize actions for the goals. These process make the learners acquire preferences, attitudes, and values. It affects the efficiency of learners and also the use of any cognitive ability that they learn. The cognitive process and knowledge dimensions are intersected to increase cognitive complexity in the defining of learning outcomes (Krathwohl D. R., 2002; Conklin, 2005). The cognitive process dimension consists of six elements, i.e., remember, understand, apply, analyze, evaluate, and create, respectively, that are ordered by the level of thinking skills from low to high. The knowledge dimension consists of four elements, i.e., factual, conceptual, procedural, and metacognitive, that are ordered by the level of knowledge from concrete to abstract knowledge.

The main concern of ETS is the situation awareness of learner. In order to design services for emergency training, the proposed services would create the inner motivation for learning to think about situations appraisingly by using simulation game. The flow of game represented in Fig.5 is reflected the affective processes and outcomes. The self-evaluation (pretest) receives the awareness of emergency response knowledge. The simulation game will motivate the learner to think about flood situations, and commit the goal to protect their house from flood. The game report from the game and risk-benefit feedback from learner will help the learner to understand the balancing of emergency response action, and risk-benefit of them. The learner is practiced to make a decision on emergency response during flood situations.
2.2. Theories of game service designs

There are several systematic design approaches that provide guidelines for creating a game. The Design Science Research Methodology (DSRM) is explored as a process model for service design (Peffers, 2007). There are six steps, i.e., identify problem and motivate, define objective of solution, design and development, demonstration, evaluation, communication. Another guideline is a Game-Based Learning framework (Van Staalduinen, 2011) that developed to design and assess games. It has four dimensions, i.e. context, learning specifics, representation, and pedagogy, which are separated in three roles. The framework is given in Figure 1 that emphasizes the important of the relationships between dimensions and roles to create an effective game design. In the context dimension, there are seven elements, i.e., fantasy, goals/objectives, communication, mystery pieces of learners, learner composition, rules, and theme. The learning specifics dimension has three elements, i.e., challenge, conflict, and progress. The representation dimension has nine elements, i.e., action-domain link, control, interaction (equipment), interaction (interpersonal), interaction (social), location, problem-learner link, representation, and sensory stimuli. In the pedagogy dimension, there are five elements, i.e., adaptation, assessment/feedback, evaluation, instructions, and safety. Game design for the emergency response game would be reusable for an emergency response knowledge and based on engagement (fun), instructive interaction and knowledge acquisition. The game should provide solutions for learners to discover knowledge without disturbing game immersion (Huynh-Kim-Bang, 2010).

This paper focuses on the game for emergency response training. The guideline for game design is necessary to completely design processes in all dimensions. The game design elements for ETS are mention in Methodology (section 3).

2.3. Theories of decision-making under risk

There are a lot of decision theories (Coombs, Dawes, & Tversky, 1970; Dillon, 1971). Mostly of these theories, they turn out to use as gambles and try to choose the best answer from the maximization of expected utility theory. In this paper, we show The objective of decision theory is to provide a rationale for making wise decisions under conditions of risk and uncertainty. The course of action will
conform to the learner’s goals, expectations and values. Decisions under uncertainty are typically represented by a payoff matrix. Rows of matrix correspond to alternative acts and columns correspond to possible states of nature. We apply this payoff matrix to illustrate an example for ETS in an emergency response game is given in Table 2

<table>
<thead>
<tr>
<th>Alternative action</th>
<th>State of nature</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Flood ($E_1$)</td>
<td>High Flood ($E_2$)</td>
<td></td>
</tr>
<tr>
<td>A1 No sealed object</td>
<td>(+2) Water leaks into the house (Low damages)</td>
<td>(+1) Water leaks into the house (High damages)</td>
<td></td>
</tr>
<tr>
<td>A2 Sealed doors</td>
<td>(+2) Take a time to seal, House safe</td>
<td>(0) Take a time to seal, Water leaks into the house (High damages)</td>
<td></td>
</tr>
<tr>
<td>A3 Sealed doors and windows</td>
<td>(+2) Take a time to seal, House safe</td>
<td>(+2) Take a time to seal, House safe</td>
<td></td>
</tr>
</tbody>
</table>

The notion of maximization expected utility is:

$$EU(A) = \sum_{i=1}^{n} P(E_i)U(X_i)$$

Where $EU(A)$ represents the expected utility of action which has consequences $X_1, X_2, ..., X_n$ depending on event $E_1, E_2, ..., E_n$. $P(E_i)$ represents the probability of the $i$th event. $U(X_i)$ represents the subjective value of the $i$th event. Assume that the probability of $E_1, E_2$ are taken to be 0.3, and 0.1 respectively, we can compute the expected utility of each action as follows:

$$EU(A_1) = 0.3(+2) + 0.1(+1) = 0.7$$
$$EU(A_2) = 0.3(+2) + 0.1(0) = 0.6$$
$$EU(A_3) = 0.3(+2) + 0.1(+2) = 0.8$$

It means the expected utility of $A_3$ gets the highest rank. In this probability, the action —Sealed doors and windows— will be worth to do comparing with other alternative actions. Disaster situations are considerably more complex. The possible alternative actions are quite diverse. Beside the maximization of expected utility theory, there are the bounded rationality theory (Simon, 1959) that is dealing with the cognitive limitations of the decision-maker. Simon designed the key principle of bounded rationality theory is some satisfactory. Another interested theory is crisis orientation theory (Kates, 1962). They said that without repeated experiences, the process evolved emergency does not take place. The decision-making under risk is a mechanism for ETS to have several processes, e.g., the ETS would have more than one situations to learn, apply the maximization expected utility by creating the list of possible alternative actions and state of nature in order to score the learners after playing a game, and the learners have to evaluate their satisfaction after using the ETS.

3. Methodologies

Based on the problems of decision-making under situations outside the emergency response training courses, the service design methods have been explored (section 2.2). The EST:flood is extended from the REST:flood framework and the Game-Based Learning framework in Figure 1. The REST:flood framework is a knowledge-based system for emergency response training which acquires knowledge from manuals of the disaster preparedness and response in order to stimulate the emergency response.
behaviors of learners in customized situations (Apisakmontri, Buranarach, Ikeda, & Nantajeewarawat, 2016). The ETS:flood is designed for the promotion of situation awareness to protect the learner and your properties in flooding situations.

According to the guidelines in the section 2, the ETS:flood contains components based on the learning goals, learning objectives, intended learning outcomes, and evaluation as a high-level design pattern. Therefore, we propose a new framework in lower-level design pattern for ETS. The design processes for learners are provided in this framework in order to gain more understanding of hazards perception and create processes involved in balancing risks and benefits when doing emergency response actions in crisis situations.

3.1. Emergency training service Design in case of flood

In order to design a game for the ETS, the game service design theories are explored in section 2.2. These theories focused on different aspects, but the main game service design elements are same. This section defines the main elements, e.g., the learning objectives, intended learning outcome, game detail, learning goals, and game evaluation, so the purpose of the emergency response training game can be fulfilled. As we mentioned in the research aims, the ETS is motivated the learners by game. The game should not provide only the correct behavior of learner in emergency situations, but they should also have the situation awareness in balancing risks and benefits while they are in the emergency situations. Furthermore, learners are allowing to run and make decisions on their own general practice in virtual environment (Strien, 2016).

3.1.1. Emergency response learning objectives

The ETS objectives are defined based on cognitive process and knowledge dimensions as follows;

1. Stimulate the learners to acquire emergency response knowledge
2. Enable the learners to comprehend themselves, their environments, and emergency response information.
3. Apply the emergency response knowledge to protect their properties in emergency situations.
4. Enable the learners to evaluate their emergency response improvement
5. Enable the learners to create an emergency response improvement that changing their behavioral response of learners after learning a new element of knowledge, i.e., risk-benefit balancing skill.
3.1.2. Intended learning outcomes

In the experiment, the ETSD is converted to a game prototype. An emergency response in house game is developed presenting a much more realistic tasks. The learners play the game according to game instruction. The intended learning outcomes are come from twofold; the results from self-
evaluation questionnaires (pretest, and posttest), a risk-benefit questionnaire, and behavioral response actions from playing games. The emergency response learning satisfaction is reflected by pretest and posttest. The behavioral response actions in emergency response game are logged before and after doing the risk-benefit questionnaire. The emergency response improvement is measured by the changing of behavior response.

3.1.3. Details of the game

Emergency response is a course of actions that requires decisions against flood situations. In the game, the number of decisions has been reduced considerably from the number that must be made on a real situation; however, the principles are the same. The learners allow to experience a general practice by creating a problem-based learning environment. The main learning outcome is that learners should learn to react to problems. When the game starts, the flood simulation starts. The player begins to interact with each furniture for protecting rooms from flood that creep toward the house. The decisions player will make in the game are: What actions you are going to do in each situation, which determines the initial emergency response knowledge of the player.

3.1.3.1. Emergency response game’s goals

Participants played the game for two rounds; each round represented a flooding situation. The losses in house and score for each round are determined by your actions and the expected utility of action (EU). At the beginning of the game, each participant is given a house with determined furniture, a variety of actions for helping to reduce the losses. For each round, the learner’s decisions are entered into a computer, which prepared a game status in each round passed. This status showed the remaining of properties in the house in game. The game will be ended if all rooms are flooded or the player escapes from the house by using an emergency exit door. A screenshot of Emergency Training game is presented in Figure 2 - 4.

3.1.3.2. Emergency response game’s evaluation

![Game flow diagram](image)

Fig. 5 Game flow.
The Emergency Training game is evaluated in twofold, using a self-evaluation questionnaire and behavioral response changing. The self-evaluation questionnaire is filled out before and after playing the game. It estimates an improvement of learning effect in emergency response knowledge. The risk-benefit feedback, which used after first round of a game, is measured in two aspects, i.e., the perceived risk of each action with each furniture, and the benefit of each furniture in order to find their associated risks and benefits (Starr, 1969). The idea to assign values of both perceived risk and benefit, player gives a rating of ten to the least risky item and scaling the other items accordingly. The assigned values of both risk of actions and benefit of properties are calculated in payoff matrix for scoring the learners' actions. A game flow is represented in Figure 5. On the other hands, the service architecture shown in Figure 6 is designed for the Emergency Response game. The knowledge come from related documents or experts is stored as rule and ontology. While a game started, the knowledge is queried by inference engine which works with database management system.

4. Conclusion

This paper designed the processes to develop an Emergency Response Game in case of Flood that is the most common natural disaster and the highest effect in Thailand. Behavioral responses are critical in stimulus situations and depended on many elements, i.e., situations, environments, equipment, and properties. The theories, i.e., theories of learning objectives, theories of game service designs, and theories of making decision under risk, have been reviewed to find out the guideline to construct the Emergency Response Game. The method to design the ETS should combines four main components, i.e., learning objectives, intended learning outcome, game detail, and evaluation. Learners can face indeterminate flood situations in a game with many problems. In order to realize the risk of flood, this paper designs an Emergency Training Service Architecture and a game flow for Simulation Emergency Training Services in case of flood (SETS:flood) in order to manage the risk of flood and learn to protect their valuable properties. The detail of game is designed in this paper. Learner plays a game and the behaviors are logged and assessed by the self-evaluation questionnaire, and behavioral response changing. These ETS design is enable the learners to comprehend themselves and protect...
their properties in emergency situations by using a game and questionnaires. The evaluation is planned in this paper to be our future work. The participants in our study evaluate during and after playing a game with regard to (a) the perceived benefit of your properties; (b) its perceived risk; (c) your perceived ability to cope with that situation; and (d) its position on four dimensions of risk, i.e., knowledge about risk, control over risk, common-dread, and severity of consequences, in each flood situations. We believe that this game design can reflect the disaster perception, and behavioral response improvement after gaining new knowledge.

References


Carter, B. (2012 йил 1-5). *Social Media Is Key for Marketers (But Not How You Might Think)*. From wired: http://www.wired.com/2012/05/social-media-marketers/


A knowledge service framework for professional qualification standards based on search and self-assessment of user skills

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Approximately over 50 percent of Thailand’s population is in the workforce. However, only less than 30 percent of the workforce has earned academic degrees from the normal education system. In addition, many industries demand specific skills that can only be assessed based on performance instead of obtained degrees. To develop manpower relative to the demands of the labor market and to increase the economic value of the country, the Thailand Professional Qualification Institute (http://www.tpqi.go.th) has invested in the development of standards of professional qualification. The provision of an online database and IT-enabled services on the professional qualification standards is unavoidable in supporting the stakeholders’ related services. This study emphasizes on the needs of several value-added services that support user goal setting in pursuing the vocational-based qualifications in different professions. We propose a knowledge service framework focusing on augmented search and personalized recommendation based on a user’s self-assessment of his or her skills. The framework is designed to improve the traditional approach of searching the qualification standards database based on keywords. The qualification standards typically use technical terms that often do not match the users’ search terms. The proposed augmented search incorporates the use of synonyms to allow the users to find related qualifications using search terms that are different from those used in the qualification standards. Alternatively, using the personalized recommendation approach, the user can assess his or her skills in an online questionnaire automatically generated in terms of units of competency. The system subsequently provides a personalized recommendation of related qualifications, gap analysis, and career paths that match the user’s skills. In improving the effectiveness of qualification search, the user can set his or her career goal, skill development, and training plan and finally pursue the qualification certification process appropriately. Our framework is unique because it can be applied to any vocational qualification standards database based on the functional analysis approach. Initial evaluation results demonstrate the improvement of retrieval effectiveness of the knowledge service approach from the keyword-based qualification search. Finally, we discuss several potentials and limitations of adopting the user-centered and scalable knowledge services based on professional qualification standards.

\textit{Keywords: vocational qualification standards, semantic search, recommender system, gap analysis, career path recommendation}

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1. Introduction

Approximately, 39 million people or over 50 percent of Thailand population is in the workforce (National Statistical Office of Thailand, 2015). However, only approximately 8 million people or 20 percent of the workforce has some academic degrees from colleges or universities (National Statistical Office of Thailand, 2015). In addition, many industries demand their workers to have specific skills that can only be assessed based on performance rather than obtained degrees. Vocational education
and qualification is increasingly and globally recognized to have both economic and social benefits (European Centre for the Development of Vocational Training, 2011). Vocational education can promote economic growth of the nation, reduction of unemployment, increasing enterprise productivity, creating individual career development opportunities and professional status.

In order to develop manpower relative to the demands of the labor market and to increase the economic value of the country, the Thailand Professional Qualification Institute (TPQI)\(^1\) has invested on the development of standards of professional qualification. The standards essentially define the assessment criteria for different vocational qualifications based on units of competency. Provision of online database and IT-enabled services on the professional qualification standards is unavoidable in supporting the stakeholders’ related services.

In this paper, we emphasize the needs for some value-added services over the professional qualification standard database. The main purpose is to help the user find the qualifications that are most suitable to the user's knowledge and skills. This process is important in helping the user to set up career goals and create individual development plan before he or she pursues the formal assessment and certification process. The traditional approach of searching qualification standards database based on keywords has a major limitation that the qualification standards typically use technical terms that are often different from the users' search terms. We propose a knowledge service framework that focuses on two forms of services as alternatives to the keyword search: semantic qualification search and qualification recommender services. The semantic qualification search incorporates use of synonyms to allow the users to find the related qualifications using search terms that are different from those used in the qualification standards. The qualification recommender services provided personalized recommendation based on the user's self-assessment of his or her skills in terms of competencies defined by the standards. In addition, the recommendations can provide the information on gap analysis, and career path recommendation for the user.

Our framework is unique in that it is scalable and can be applied to any professional qualification standards designed based on the functional analysis approach (Stewart & Sambrook, 1995) (Burke, 1989). Finally, we evaluate the effectiveness of the provided services against a keyword-based qualification search baseline system. The initial results have shown that the recommendation-based service is the most effective method when the qualification standards are defined appropriately. The semantic search service is effective and requires less effort when the synonyms are defined for the user's search terms but is less effective when the search terms are general terms and when the relationships between skills are complex.

2. Background

2.1 Vocational education and qualification

Vocational education prepares individuals or trainees for professions at various levels in different occupations. It is often based on manual or practical activities related to a specific trade, occupation or vocation and is typically non-academic (UNESCO, 2016). It is often related with vocational training, which helps an individual to develop expertise in a particular group of techniques. Vocational education may be classified as teaching procedural knowledge. This is in contrast to academic education which typically focuses more on declarative knowledge, i.e., theory and abstract conceptual knowledge. Vocational education can be seen as a form of lifelong learning.

\(^1\) http://www.tpqi.go.th/
Vocational qualification often involves recognition of prior learning (RPL) (Andersson & Harris, 2006), which aims to evaluate skills and knowledge acquired outside the classroom for the purpose of recognizing competence against a given set of standards or learning objectives. Competency-based assessment (Burke, 1989) is a critical element of RPL in assessment of skills and knowledge in order to grant vocational qualifications. Once the competencies have been defined for particular job / roles, it becomes possible to assess the employee’s competencies against those required for current or future roles within the organization. Self-assessment can be used as an initial tool for assessing individual’s competencies and proficiency levels needed within the target role / job. The results can be a report that highlights both individual’s strengths as well as competencies requiring improvement. This information can then be used to support the development of a learning plan for the individual’s skill development.

2.2 Professional qualification standards

Professional qualification standards or vocational standards or competency standards are the standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the required knowledge and understanding (UK Commission for Employment and Skills, 2016). They describe what an individual needs to do, know and understand in order to carry out a particular job role or function in his or her occupation. They are normally defined by a representative sample of employers and other key stakeholders and approved by the national qualification standard organization. Many countries have established occupational competence standards, to support skills development, employability and vocational education developments. This is to help enabling skills transfer and recognition, supporting skills credibility, and global economic competitiveness.

Professional qualification is a certification earned by a person to assure qualification to perform a job or task. They typically involve competence-based assessment. Competencies (Burke, 1989) include all the related knowledge, skills, abilities, and attributes that form a person’s job. Identifying employee competencies can contribute to improved organizational performance. Competency assessment criteria are normally based on national professional qualification standards. Qualification levels defined by the standards should be comparable between different industries.

One approach in defining professional qualification standards is the Functional Analysis framework (Burke, 1989; Stewart & Sambrook, 1995). Functional Analysis is a technique used to identify the labour competencies inherent in a productive function (UNESCO-UNEVOC, 2010). Functional analysis is not an exact method but rather a working approach to the required competencies by means of a deductive strategy. It begins by establishing the main purpose of the productive function or service under study and then questions are asked to find out what functions need to be performed in order for the previous function to be achieved (UNESCO-UNEVOC, 2010). The method of functional analysis is the basis in the creation of labour competency standards. The main components in competency standards are typically Units of Competency (UOC), Elements of Competency (EC), Performance criteria (PC), and assessment guidelines.

2.3 Service system and knowledge service system

In Service Science, the service paradigm focuses on customization, customer relationships, service focusing, marketing to individual customers and improved information processing (Rust & Miu, 2006). A service is co-creation of value between the customer and the provider. Quality is a measure of value from a customer stakeholder perspective, and productivity is a measure of value from a provider stakeholder perspective (Hsu & Spohrer, 2009). Thus, one of the challenges is to increase
value co-creation outcomes of customer and provider interactions. Digital Connections Scaling (DCS) studies how the digital means may increase in the value outcomes (Hsu & Spohrer, 2009). The model proposes that digitization reduces the time and the transaction cost of service co-creation, improves service quality and productivity, and ultimately enhances the utility of service to the customer and the profit of service to the provider.

A service system made up of its entities: customer, service provider, and service experience (Kwan & Min, 2008). The unified services theory (Sampson, 2001) emphasizes that, in the service model, the customer provides significant inputs into the production process. The customer-input involvement distinguishes the service model from the non-service model, where customer mostly involves in consuming the output. Thus, a service system is distinguished from other types of systems by the fact that the customer may be actively involved in all nine classes (Karni & Kaner, 2007): customer, goals, input, output, process, human enabler (as a resource in the process), physical enabler (providing a resource to the process), informatic enabler (applying knowledge to the process) and environment.

In our framework, we propose that Knowledge Service is an innovational service which combines the concept of services innovation (Maglio, Srinivasan, Kreulen, & Spohrer, 2006; Spohrer, Maglio, Bailey, & Gruhl, 2007; Spohrer & Maglio, 2008) and knowledge innovation (Zhao & Hu, 2007). Its focus is usually on how to effectively organize information resources to meet with individual user requirements especially in problem solving and decision making. In addition, knowledge service system also focuses on providing intelligent services, i.e., service automation and personalization. Ontologies may be used for representing domain knowledge in knowledge service system (Mentzas, Kafentzis, & Georgolios, 2007; Soergel, 2008; Zhao & Hu, 2007). Table 1 lists some key characteristics of knowledge service system based on the service paradigm.

Table 1. Focuses of knowledge service system.

<table>
<thead>
<tr>
<th>Service System</th>
<th>Knowledge Service System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customization</td>
<td>Personalization</td>
</tr>
<tr>
<td>Customer relationship</td>
<td>User profiling</td>
</tr>
<tr>
<td>Service focusing</td>
<td>Problem-solving and decision making focusing</td>
</tr>
<tr>
<td>Marketing to individual customers</td>
<td>Recommendation for individual users</td>
</tr>
<tr>
<td>Improved information processing</td>
<td>Improved information analysis</td>
</tr>
</tbody>
</table>

3. A knowledge service framework for professional qualification standards

3.1 Design of the framework

This section describes the design of a knowledge service framework for vocational qualification standards. The framework aims to support the user’s goal setting in pursuing the vocational-based qualifications in different professions. One of the designed goals is to improve the traditional search of qualification standards database based on keyword search technique, which is typically not effectiveness when the users’ search terms do not match with those used in the qualification standards. The framework focuses on providing augmented search and personalized recommendation based on the user’s self-assessment of his or her skills. The design is shown as a layered architecture in Fig. 1. The architecture is divided into three layers: data and knowledge, application service, and knowledge service layers. The detailed design can be described as follows.
Data and knowledge layer.

This layer involves storing vocational qualification standards into the database form. The qualification standards contain description of all vocational qualification levels for different occupations and performance assessment criteria in terms of units of competency (UOC) and element of competency (EC) required by each qualification level.

Application service layer.

Multiple application components can be built on top of the vocational qualification standards database. The components are built and interacted with each other using the Web Service model. These components basically provide some intelligent processing functions over the standards database. For example, the keyword extraction service (Siriset, Buranarach, Sutantayawalee, & Ruengittinun, 2016) performs information extraction over Thai text in the database. Its output is subsequently used by the synonym service (Anantanitivate, Buranarach, Krataithong, & Ruengittinun, 2016), which provides support for the semantic search service. The competency similarity analysis service determines the similarity degree between two UOCs, which is important for the recommender service in recommending related qualifications and career paths (Ruangrajitpakorn, Na Chai, Buranarach, Supnithi, & Kongkachandra, 2015). In addition, Web-based self-assessment questionnaire can be generated based on the UOCs in the standards database. The data visualization service is used in producing the personalized recommendation report.

Knowledge service layer.

The knowledge service layer aims to assist each user to make better decision in planning their career goals and individual development. The personalized recommendation results based on the user’s self-assessment of skills can be used as a basis for several services in vocational qualification including informal recognition of current competency, gap analysis, career path recommendation and skill development planning.

3.2 Domain knowledge modeling

The domain knowledge modeling consists of data modeling and business rule modeling. The data modeling is important for designing database schema. The business rule modeling is important for designing automated services. The data modeling for qualification standards based on the functional analysis approach is shown in Fig. 2 using UML notation. The main classes are Qualification, Unit of Competency (UOC), Element of Competency (EC) and Performance Criteria (PC). A qualification
can consist of multiple UOCs while one UOC can be part of multiple qualifications. An UOC can consist of multiple ECs, although one EC can be part of only one UOC, which represents a composite relationship. Similarly, an EC can consist of multiple PCs, although one PC can be part of only one EC, which represents a composite relationship.

![Diagram](Fig. 2. Data modelling for vocational qualification standards)

<table>
<thead>
<tr>
<th>EC 1</th>
<th>X</th>
<th>UOC 1</th>
<th>X</th>
<th>Qualification 1</th>
<th>X</th>
<th>Qualification 2</th>
<th>X</th>
<th>Qualification 3</th>
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<td>X</td>
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<td>UOC 2</td>
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<td></td>
</tr>
</tbody>
</table>

Fig. 3. Examples of the two types of the competency to qualification mapping rules

The business rule modeling for qualification assessment in the qualification standards is shown in Fig 3. There are two types of the competency to qualification mapping rules: rules for determining completion of UOC and rules for determining qualification of vocational competence, i.e. qualification. The rule for determining completion of a UOC is based on completion of its ECs, which are subsequently based on completion of their PCs which are defined by the standards. The rule for determining completion of a qualification is based on completion of its UOCs. The rules of the first type are typically mutual exclusive, i.e. no UOC shared the same set of EC. The rules of the second type may be inclusive, i.e. a qualification in the higher level may include all UOCs of its lower-level qualifications.

3.3 Semantic qualification search service

The traditional approach of searching qualification standards database based on keywords has a major limitation that the standards typically use technical terms that are often different from the users' search terms. In our framework, the keyword-based searching of the standards database is augmented with query expansion based on synonyms. The development of synonyms database starts with the keyword extraction service, which extracts the technical terms appeared in the standards database. The human experts then define some casual terms, which are those likely used as the user’s query terms, as synonyms of each term. This results in the construction of the synonym sets corpus of the synonym service.

In processing a query, the semantic search system uses the query expansion technique, which maps the user’s query terms with the related synonym sets via the synonym service. If matched, the user’s query terms are then extracted to the technical terms which will result in the retrieval of the related qualifications. Using this technique, when the user’s query term does not appear in the database but is defined in a synonym set, the search results will be equivalent to those of the keyword-based search using the associated term appeared in the database.
3.4 Recommendation services based on user’s self-assessment

Self-assessment of user skills is an initial step that allows a person to recognize his or her own ability in profession and be motivated to apply for an official qualification. In our framework, self-assessment support service is a key part of service innovation for self-checking of a user’s skill and knowledge. It is an essential step in matching the user’s skills with the related professional qualifications. Through units of competency of each occupation, the service will recognize the user’s prior knowledge and skills and analyze gap by listing all of the user’s strengths and weaknesses and, then, recommend ways to improve oneself. At the end of the assessment, one will see a list of qualifications that are a good match for the user’s skill profile.

Within the context of the TPQI system, the self-assessment service aimed to help employees or learners in the following aspects:

- **Self-assessment Check-list:** To generate a check-list questionnaire to evaluate a person’s competency in a qualification of a profession.
- **Recommend Qualification:** To identify TPQI qualification levels that match with the user’s competency.
- **Gap Analysis:** To identify a set of elements of competency of a person that meets requirement (strengths) or needs to be improved (weaknesses) against a qualification level.
- **Recommend Career Path:** To identify possible higher-levels of qualification based on the person’s current competency and qualification. This allows the person to make decision or define career goals based on possible opportunities offered by different qualification paths.

3.5 Qualification recommendation and gap analysis scoring

The user’s competency score for an UOC (UC) is used to determine the similarity degree between the user’s self-assessed skills and the UOC’s required skills. Given \( uoc \) is the set of ECs that are parts of a UOC, i.e. \( uoc = \{ ec_1, ec_2, \ldots, ec_n \} \) and \( usr \) is the set of ECs that a user selected from the online questionnaire as his or her skills, i.e. \( usr = \{ sk_1, sk_2, \ldots, sk_n \} \). The UC value of the user against the UOC can be defined as:

\[
UC = \frac{|usr \cap uoc|}{|uoc|}
\]  

The user’s competency score for a qualification (QC) is used to determine the similarity degree between the user’s self-assessed skills and the qualification’s required skills. Given \( qual \) is the set of UOCs that are parts of a qualification, i.e. \( qual = \{ uoc_1, uoc_2, \ldots, uoc_n \} \), \( uoc_i \) is the set of ECs that are parts of the UOC, i.e. \( uoc_i = \{ ec_{i1}, ec_{i2}, \ldots, ec_{in} \} \), and \( usr \) is the set of ECs that a user selected from the online questionnaire as his or her skills, i.e. \( usr = \{ sk_1, sk_2, \ldots, sk_n \} \). The QC value of the user against the qualification can be defined as:

\[
QC = \frac{\sum_{i=1}^{n} |usr \cap uoc_i|}{\sum_{i=1}^{n} |uoc_i|}
\]

The UC value can be used to determine the strengths and weakness of a user’s skills in terms of UOC as follows. The user is considered having a UOC as strength if his or her UC value against the UOC is equal to one and considered requiring improvement for the UOC if the UC value is below one.
The QC value can be used for qualification recommendations for a user as follows. The user is recommended a qualification if his or her QC value against the qualification is above zero. The QC value above zero indicates that the user has some common skills with at least one UOC and thus has potential to achieve the qualification if the required skills for the other UOCs are developed.

Gap analysis can be conducted for a user against a UOC or a qualification. The UOC gap (UG) and qualification gap (QG) values are defined as:

\[ UG = 1 - UC \]  
\[ QG = 1 - QC \]  

4. System implementation and evaluation

4.1 Related work

Faceted search (Hearst, 2006) and personalized recommendation are the two main approaches used by various national vocational standard institutes to augment keyword search technique in helping the users search the qualification database. For example, Australia’s MySkills\(^2\), UK’s NOS\(^3\) and Korea’s Q-Net\(^4\) have effectively used faceted search to augment keyword search in finding qualifications. Self-assessment is another technique used by many institutes to provide personalized recommendation for the users. For example, Singapore’s WDA\(^5\) provides job recommendations based on the user’s personality type defined according to the Holland Codes (Holland, 1959; Nauta, 2010). Korea’s Q-Net provides an automated self-checking service for the user’s eligibility for a qualification test based on the user’s skills and personal information. Philippines’s TESDA\(^6\) provides online self-assessment questionnaire documents, although the assessment process needed to be conducted by human expert offline.

Our work is different from existing work in several aspects. First, a semantic search technique based on synonyms is proposed to augment keyword searching in matching the user’s terms with the technical terms in the standard database. Second, we propose a generalized framework for qualification recommendation based on user’s self-assessment of skills according to units of competency. To the best of our knowledge, this is the first automated self-assessment framework based on units of competency of vocational qualification standards. Third, we conducted an initial evaluation study that compared the effectiveness of the three approaches in searching qualification standards database: semantic search based on synonyms, recommendation based on self-assessment, and keyword search approaches. Some lessons learned from the study can be beneficial to future research and development of qualification standards database search systems.

4.2 System implementation and scenario

This section illustrates typical interactions between the user and the service system in using the self-assessment service in finding qualifications that match with his or her skills. Fig. 4 shows the implementation of the self-assessment service in the TPQI-Net system\(^7\). The first step is the user choosing an industry, i.e. profession, that he or she is interested in pursuing qualifications, e.g., automotive. The system subsequently generates an online self-assessment questionnaire listing the

\(^2\) http://www.myskills.gov.au/
\(^3\) http://nos.ukoess.org.uk/
\(^4\) https://www.q-net.or.kr/qnet/html/eng_qnet/main.html
\(^5\) http://www.wda.gov.sg/
\(^6\) http://www.tesda.gov.ph/
\(^7\) http://tpqi-net.tpqi.go.th/tpqi_sa/
related job functions. The user chooses main functions of interest, e.g., engine installation. The system subsequently generates a set of questions formed based on the related elements of competency (EC), and units of competencies (UOC) of the selected functions. When the user submits the answers, the system generates a list of UOCs that are considered the user’s strengths and those requiring improvement as well as the degree of competency and gap values, i.e. UC and UG values. In addition, the system generates a list of recommended qualifications related to the user self-assessed skills as well as its degree of competency and gap values, i.e. QC and QG values. In addition, the system analyses the career path of each qualification and recommended related career paths based on similarity of UOCs (Ruangrajitpakorn et al., 2015). As of April 2016, the framework already provides support for over 200 qualifications developed for over 25 industries.

4.3 Preliminary evaluation results

The aim of the knowledge service is to improve the effectiveness in finding the relevant qualifications from the qualification standards database. Thus, we preliminarily evaluate the effectiveness of the service in terms of precision (P) and recall (R) of the results. The evaluation results are compared with those of the keyword search system, which is used as a baseline system. We define six queries that represent the user’s skills. The queries are different in terms of professions, and required skills. Six queries were run against the TPQI qualification standards database in two scenarios: using the Thai query terms that appear in the database (matched) and using the Thai query terms that do not appear in the database but can be mapped by means of synonyms (not matched). The preliminary test queries and evaluation results are shown in Table 2.
# Table 2. Preliminary test queries and evaluation results of qualification search from the TPQI database using three different approaches.

<table>
<thead>
<tr>
<th>Queries</th>
<th># of qualifications in profession</th>
<th>Self-assessment</th>
<th>Semantic search (matched, not matched)</th>
<th>Keyword search (matched, not matched)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td># of questions generated</td>
<td>P</td>
<td>R</td>
</tr>
<tr>
<td>Q1: NGV carburetor</td>
<td>27</td>
<td>16</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Q2: NGV fuel injection system</td>
<td>27</td>
<td>16</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Q3: translate book</td>
<td>21</td>
<td>21</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Q4: pattern maker</td>
<td>33</td>
<td>24</td>
<td>0,8</td>
<td>1,1</td>
</tr>
<tr>
<td>Q5: logistic by air</td>
<td>30</td>
<td>34</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Q6: person photograph</td>
<td>22</td>
<td>33</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>26.67</td>
<td>24</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Based on the results of the test queries, the self-assessment service is the most effective method in terms of both precision and recall (P=0.97, R=0.97). The self-assessment method was advantageous because it was not affected by the user selection of keywords. The disadvantage of the method was that the user had to spend more time to answer questions in the online questionnaire (average of 24 questions). However, its retrieval effectiveness can be affected when two qualifications share some common skills. For example, in Q4, the qualifications of pattern marker share several common UOCs with the qualifications of tailors, which resulted in reduced precision for the query. In addition, the effectiveness of the method is also affected when some UOCs are not in its typical function. For example, in Q4, most of the pattern maker qualifications are parts of the production function. However, there are few pattern maker qualifications that belong to the management function, which was not typical and thus not selected in the questionnaire. This resulted in reduced recall for such a query. The semantic search method is more effective than the keyword search method when the user’s search terms do not appear in the database but are defined in the synonym sets (P=0.76, R=0.92). The semantic search has the same precision and recall values as the keyword search when the search terms appear in the database. The precision of both methods can be affected by the keywords that have several meanings. For example, Q3 and Q6 include the terms —แปล (translate) and —บุคคล (person) which are common terms in Thai language. Thus, the precision is significantly reduced for these queries. The recall of the both search methods are also reduced when there are implied relationships between the UOCs. For example, in Q2, the skills related to fuel injection system implies some prerequisite skills that are parts of the preceding-level qualifications, e.g. basic engine inspection skills. However, using keyword matching technique, the preceding-level qualifications were not retrieved, which resulted in lower recall.

## 5. Discussion and conclusion

In this paper, we propose a novel knowledge service framework to assist the users in finding vocational qualifications that match with their skills. The framework aims to improve the process of finding qualifications that typically uses the keyword-based searching technique. We argue that the traditional keyword-based search technique is not effective in searching qualifications because the user’s search terms are frequently informal terms that do not match with the technical terms used in the database. Two alternative searching approaches proposed in our framework are semantic search service based on synonyms and personalized recommender service based on user’s self-assessment of skills. The semantic search approach adopts the query expansion technique based on pre-defined
synonym sets which allows the user to use informal terms to search the qualification database. The recommender service approach focuses on providing personalized recommendation results based on the user's self-assessed skills in terms of competencies required by the assessment criteria. We define knowledge services including qualification recommendation, gap analysis, and career path recommendation that are important for user's career goal setting and individual development planning. We highlight implementation details of some main components of these services in the TPQI system that can be generally applied to any qualification standards database designed based on the functional analysis approach.

Preliminary evaluation results based on some test queries over the TPQI qualification standards database have demonstrated some advantages and disadvantages of both approaches in comparison with the keyword-based search approach as follows. The recommender service approach has the best overall retrieval performance because it is not affected by the selection of user's search terms. In addition, the user can receive additional useful analysis information such as personalized results on gap analysis and career path recommendation. However, the recommender service approach requires more user's effort in answering the self-assessment check-list questionnaire. Its effectiveness can also be affected by the structure of the qualification standards such as common units of competency and key functions of the qualifications. The semantic search approach based on synonyms generally has better retrieval performance than the keyword search approach only when the user's search terms do not appear in the database but are defined in the synonym sets. Its retrieval effectiveness is inferior to the recommender service approach when the query terms are common terms or have more than one meaning, i.e. polysemy. However, the semantic search approach requires lesser user's efforts. When the synonym sets corpus is created comprehensively, the semantic search approach can provide a good balance between the user's effort and retrieval effectiveness. In summary, the semantic search and personalized recommendation approaches can complement each other and typically offered better retrieval effectiveness than the keyword-based search approach in searching the qualification standards database.

One of the limitations of our work is that the evaluation was not performed by naive users. Thus, we plan to conduct some usability tests with the workforce in different industries. Our planned future work also includes a more intelligent generation of the user's self-assessment questionnaire, e.g. using the user's work evidence to imply his or her competencies. An extension of the framework to support the formal assessment in RPL process based on user's personal profiles and e-portfolios will also be investigated.

Acknowledgements

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References


Siriset, N., Buranarach, M., Sutantayawalee, V., & Ruengittinun, S. (2016). Automatic keyword extraction from database system (Thai language). In *Proc. of the 1st Undergraduate NLP Workshop (UNLP2016), co-located with the 11th International Symposium on Natural Language Processing (SNLP-2016).*


Brand experience is developed not only when a consumer is exposed to a brand’s advertisement, where preliminary perception and expectations are formed, but also upon and after using a product or service. Resulting from these experiences, the attitude toward a brand eventually influences a consumer’s purchase intention and his or her willingness to advocate for the brand. This research was conducted to investigate the relationship between brand experience and purchase intention of fashion wear among Generation Y members in Malaysia. Data sets of 300 responses collected through questionnaire survey were analyzed. The exogenous construct of brand experience was represented by the following variables: perceived quality, brand reputation, outlet ambient, customer service, and complaint handling. By contrast, the endogenous construct is customer purchase intention toward fashion wear. This study contributes to the literature by consolidating the exogenous variables into two main constructs, namely, product experience and shopping experience. Results of this study provided a few specific knowledge on the methods of engaging customers and enhancing brand experience.

Keywords: brand experience, purchase intention, perceived quality, brand reputation, outlet ambience, customer service and complaint handling

* Corresponding author

1. Introduction

Generation Y - the largest generation in Malaysia, refers to those born in year 1980 to 1994. They are the ones with high income (Wong, 2015) and well educated thus have the influencing power towards their family's shopping decision. According to Mercedes-Benz Fashion Week's - American Express Business Insights data, Generation Y contributed 31% of the total spent in the year 2011 (Little, 2012). They too are the largest group in spending on online luxuries compared to any other age groups (Fernandez, 2009; Little, 2012). They perceive shopping and purchase as one of their social activities (Bakewell and Mitchell, 2003 as cited in Williams & Page, 2012).

Ma, Ward, Qua & Ryss (2012) defined brand as an element which is used to recognize a company or product. They said that customers' emotions as well as their thinking and feeling at every touch points are considered as experiences. Brand experience is created when customers start to search, talk and share the brand information with their relatives and friends (Ambler et al., 2002, as cited in Sahin, Zehir & Kitapei, 2012). Most of all, based on Brakus, Schmitt, Zarantonello (2009), brand experience is associated with people sensation, recognition and responses stimulated by the brand design, specification, packaging, environment and communication. The outcome of which can be positive or negative and it affects consumer behaviour and commitment (Brakus, Schmitt, Zarantonello 2009). Brand experience influence consumer's perception and thus generates influencing power on consumer purchase intention (Hoch and Deighton 1989, as cited in Sahin, Zehir & Kitapei, 2012).
Li (2011) stated that Generation Y are the early adopters for branded merchandize and they are loyal towards their trusted brands. Besides that, their purchase intention is influenced by innovativeness, services, activities or information given by shopping store (Xu, 2007). As internet has fast become a communication channel, Malaysian consumers often search for brand related information through the internet and other digital media. They eventually made the purchase through the net as well (Kwek, Lau & Tan, 2010). Online shopping creates a new and exciting buying experience compared to traditional shopping but they are unable to provide the feel-touch-try shopping experience. Nevertheless, it is apparent that more and more online brands are emerging whilst others joins the ‘hot pot’ by offering dual channels, others re-modeled their outlets to be in line with the latest trend. This research was carried out to investigate the effects of brand experience on consumers' particularly Generation Y purchase intention.

2. Literature review

Brakus et al., (2009) suggested that brand experience associated with people sensation, recognition and responses and all these feeling are stimulated by the brand designation, specification, packaging, environment and communication. The outcome of which can be positive or negative and it is affecting consumer behaviour and commitment over short-term period or long-term period of time (Zarantonello & Schmitt 2000, as cited in Sahin, Zehir & Kitapei (2011)). Brand experience can be divided into two aspects - product experience and shopping / service experience. Product experience occurs when consumers have interaction with the product (Hoch 2002) which shopping / service experience occur when consumers are having interactions with the store's physical environment, staff, as well as the rules and policies (Kerin, Jain and Howard (2002); Hui and Bateson (1991) as cited in Brakus, Schmitt & Zarantonello (2009)). Theory of Planned Behaviour has great power in forecasting and understanding the future behaviour but it has undergone several practical and theoretical difficulties and subsequently broken down into a collection of significant beliefs (Taylor and Todd (1995)). Attitude towards a brand includes its perceived value and perceived quality.

Mohanty & Sikaria (2011) stated that innovation of the design on a retail outlet impace customer's shopping experience and satisfaction. Comfort and outlet ambience encourage customer to feel relax and improve their shopping experiences (Morrison (2002)). Service quality brings up customer satisfaction; enhance their consumption assessment thus promoting purchase intention. Customer satisfaction on services is the determinant of a company's long-term success (Parasuraman, Zeithaml and Berry 2004, as cited in Kamaladevi (2009)). According to Estelami (2000), consumer experiences on complaining on a product or services may result in different level of dissatisfaction and disappointment. Good complaint handling with service recovery not only helps in reducing the possibility of negative word of mouth but also necessary to reform consumer's future purchase intention (Bollen & Emes (2008)). These form the basis of shopping / service experience in this study.
3. Methodology

This is a quantitative descriptive research that collected primary data from Generation Y within age 20 to 34 that were studying in university/college or working in Malaysia. Quota sampling techniques were being applied to collect the 300 closed-ended surveys. Section A of the questionnaire comprises of questions on respondents’ demographic profile and section B on research objectives. The questions adopted nominal and ordinal scale in Section A and 5-point Likert scale in Section B. The survey data were run with SPSS 20.0 software which interpreted the descriptive statistics, scale measurement and inferential analysis. Descriptive statistics provide frequency on distribution, percentage of distribution and average in the study. Cronbach’s Alpha reliability test and validity test were used in the scale measurement. Pearson Correlation and multiple regression analysis were being performed in the inferential analysis.

4. Results

Descriptive study shows that the dominant respondents were female (64.70%) with the rest were male (35.30%). There are 37.30% respondents with age within 20-24 years old, followed by the age between 25-39 years old (35.70%) and 30-34 years old (27.00%). Majority of our respondents were single (72.30%), and 27.70% were married. The majority of respondents were Secondary school holder (36.70%), Degree holder (31.00%), followed by Diploma holder (23.30%), Post graduate (7.30%), Professional (1.30%) and lastly PHD holder (0.30%). Majority of respondents were executive (33.70%), followed by students (31.70%), nonexecutive (16.30%), self-employed (10.00%) and lastly the others (8.30%). Majority of respondents (35.70%) have monthly income in between RM2001-RM3000, following by 32.70% with monthly income RM500 or less, 20.00% have monthly income in between RM3001-RM4000, 5.30% with monthly income in between RM4001-RM5000, 3.70% with monthly income of RM5001 and above and lastly, 2.70% with income in between RM1001-RM2000.
4.1 Reliability analysis test

As shown in table 1, Cronbach's Alpha value are in between of 0.75 and 0.90, these reading shown that the data collected for all the variables are reliable (Hair et. al, 2010). Among the variables, outlet ambience shows highest reliability value with $\alpha = 0.90$. It was followed by the complaint handling with $\alpha = 0.86$; perceived value with $\alpha = 0.86$; brand reputation with $\alpha = 0.85$; customer services with $\alpha = 0.83$; perceived quality with the lowest $\alpha = 0.75$. Lastly, dependent variable (purchase intention of fashion wear) shown $\alpha = 0.81$.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach's Alpha</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase intention of Fashion Wear</td>
<td>0.81</td>
<td>6</td>
</tr>
<tr>
<td>Perceived Value</td>
<td>0.86</td>
<td>5</td>
</tr>
<tr>
<td>Perceived Quality</td>
<td>0.75</td>
<td>5</td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>0.85</td>
<td>5</td>
</tr>
<tr>
<td>Outlet Ambience</td>
<td>0.90</td>
<td>6</td>
</tr>
<tr>
<td>Customer Service</td>
<td>0.83</td>
<td>5</td>
</tr>
<tr>
<td>Complaint handling</td>
<td>0.86</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 1. Reliability Statistics of Variables.

4.2 Pearson correlation analysis

Pearson Correlation Analysis is use to test the correlation between the variables (Malhotra, 2007). As shown in table 2, all variables are correlated with significant value lower than 0.01. The lowest $\beta$ value (0.363) is in between customer service and perceived quality, the highest $\beta$ value (0.820) is in between outlet ambience and perceived value.

<table>
<thead>
<tr>
<th></th>
<th>Perceived Value</th>
<th>Perceived Quality</th>
<th>Brand Reputation</th>
<th>Outlet Ambience</th>
<th>Customer Service</th>
<th>Complaint Handling</th>
<th>Purchase Intention of Fashion Wear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Value</td>
<td>0.673(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Quality</td>
<td>0.676(**)</td>
<td>0.600(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>0.820(**)</td>
<td>0.655(**)</td>
<td>0.695(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlet Ambience</td>
<td>0.551(**)</td>
<td>0.363(**)</td>
<td>0.530(**)</td>
<td>0.505(**)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Service</td>
<td>0.689(**)</td>
<td>0.608(**)</td>
<td>0.722(**)</td>
<td>0.687(**)</td>
<td>0.437(**)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Complaint Handling</td>
<td>0.693(**)</td>
<td>0.559(**)</td>
<td>0.614(**)</td>
<td>0.670(**)</td>
<td>0.684(**)</td>
<td>0.617(**)</td>
<td>1</td>
</tr>
</tbody>
</table>

** less than 0.01
4.3 Multiple Regression Analysis

Multiple regressions and ANOVA tests were conducted on the data to predict the causal relationships in between the variables. As shown in Table 3, $R^2 = 0.651$ indicated that there are 65.1% of the variation in the adoption decision can be explained by the predictors variations (complaint handling, customer service, outlet ambience, brand reputation, perceived value, perceived quality). The model is significant as shown by the F value of 9.276.

Table 3. Model Summary.

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R$ Square</th>
<th>Adjusted $R$ Square</th>
<th>Std. Error of the Estimate</th>
<th>$F$ Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.807$^a$</td>
<td>.651</td>
<td>.644</td>
<td>.54111</td>
<td>91.276</td>
<td>.000$^b$</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Complaint Handling, customer Service, Outlet Ambience, Brand Reputation, Perceived Value, Perceived quality

b. Dependent Variable: Purchase intention of Fashion Wear DV

Table 4 shows that all the independent variables except brand reputation are significant in influencing the dependent variable of purchase intention of fashion wear. Among the independent variable, customer service shown highest influence on purchase intention, followed by perceived value, complaint handling, outlet ambience and perceived quality.

Table 4. Table of Coefficient.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>$t$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.846</td>
<td>.130</td>
<td>6.513</td>
<td>.005</td>
</tr>
<tr>
<td>Perceived Value Quality</td>
<td>.139</td>
<td>.058</td>
<td>2.403</td>
<td>.017</td>
</tr>
<tr>
<td>Perceived Quality Brand</td>
<td>.105</td>
<td>.050</td>
<td>2.093</td>
<td>.037</td>
</tr>
<tr>
<td>Reputation</td>
<td>.008</td>
<td>.046</td>
<td>1.80</td>
<td>.857</td>
</tr>
<tr>
<td>Outlet Ambience Customer</td>
<td>.117</td>
<td>.051</td>
<td>2.291</td>
<td>.023</td>
</tr>
<tr>
<td>Service Complaint Handling</td>
<td>.309</td>
<td>.032</td>
<td>9.523</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>.125</td>
<td>.046</td>
<td>2.733</td>
<td>.007</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Purchase Intention of Fashion Wear

b. Predictors: (Constant), Complaint Handling, customer Service, Outlet Ambience, Brand Reputation, Perceived Value, Perceived quality
The multiple regression equation formulated from the above relationship is:

\[ FW = 0.846 + 0.139 \text{(PV)} + 0.105 \text{(PQ)} + 0.117 \text{(OA)} + 0.309 \text{(CS)} + 0.125 \text{(CH)} \]

- **FW** = Purchase intention of Fashion Wear
- **PV** = Perceived Value
- **PQ** = Perceived Quality
- **OA** = Outlet Ambience
- **CS** = Customer Service
- **CH** = Complaint Handling

From the equation, the linear regression shows that by increasing a unit in perceived value, the purchase intention of fashion wear will increase by 0.139. Besides, by increasing a unit in perceived quality, the purchase intention of fashion wear will increase by 0.105. Moreover, by increasing a unit in outlet ambience, the purchase intention of fashion wear will increase by 0.117. Then, by increasing a unit in customer service, the purchase intention of fashion wear will increase by 0.309. Lastly, by increasing a unit in complaint handling, the purchase intention of fashion wear will increase by 0.125.

The significant values as shown in table 4 proven that there are significant positive relationship in between the independent and dependent variables except brand reputation and therefore all the hypotheses except hypothesis three are supported.

As shown by the result, perceived value has positive relationship with the purchase intention of fashion wear with \( \beta \) value of 0.139. Based on Li and Green (2010), customer perceived value is the assessment of product utility according to their perception on what is given and what is received throughout the whole purchases.

Perceived quality has positive relationship with the purchase intention of fashion wear with \( \beta \) value of 0.105. According to Alex & Thomas (2011), product quality is the collection of features and characteristics of a goods and services that consist of ability to fulfill user requirement. Hence, the result showed that the perceived value has strong positive relationship with the purchase intention of fashion wear.

Brand reputation did not shown significant relationship with the purchase intention of fashion wear in this study probably due to the over competitive nature of online business. Customers are able to access to the information which includes the price and comments from other customers easily from the internet and this may have caused the brand parity and therefore the brand reputation has lesser influence on the customers of today.

Outlet ambience has a positive relationship with the purchase intention of fashion wear with \( \beta \) value of 0.117. Mohanty & Sikaria (2011) stated that innovation of a retail store has an impact on the customer’s shopping experience and satisfaction. Therefore, the result showed that there was a strong positive relationship between outlet ambience and purchase intention of fashion wear.

Customer service has positive impact towards the purchase intention of fashion wear with \( \beta \) value of 0.309. Based on Baker & Crompton (2000), the customer practical experiences with the service from the business have become the key statement in brand evaluation. Therefore, the result showed that there was a strong positive relationship between customer service and purchase intention of fashion wear.

Complaint handling has positive relationship with the purchase intention of fashion wear with \( \beta \) value of 0.125. According to Estelami (2000), consumer experiences of complaint on a product or service
may result in different levels of dissatisfaction and disappointment. Hence, the result showed that the complaint handling has a strong positive relationship with the purchase intention of fashion wear.

5. Discussion of major findings

Results of ANOVA test (p < 0.05) indicated there is a significant relationship between the independent variables (perceived value, perceived quality, brand reputation, outlet ambience, customer service, and complaint handling) and the dependent variable (purchase intention) (Malhotra, 2007). Coefficient of determination, (R Square = 0.670) shows that there is 67% variation in the adoption decision can be explained with the predictor's variations (perceived value, perceived quality, brand reputation, outlet ambience, customer service, and complaint handling).

The research proves that perceived value, perceived quality, outlet ambience, customer service, and complaint handling have a significant relationship with customer commitment. Of all the independent variables, customer service has the strongest relationship with the dependent variable with standardized β value of 0.409. However, the result shows that brand reputation does not have a significant relationship with purchase intention. Hence, from the result obtained, we discovered that customers are very concerned about the service they receive from the brands. Respondents pay more attention towards factors such as services, value, and qualities than brand reputation. This finding is not in line with the studies of Keller (1993), Del Rio Del Rio, Vazquez & Iglesias (2011), Sinha and Batra (1999).

5.1 Implication of studies

Findings from this study ascertain that perceived value is the key influencing factor among Generation Y towards the purchase of fashion wear. In view of this, it is recommended that fashion wear brands to focus on value creation, creating the impression that the value that customers received by purchasing an item is far greater than what they paid. One way to achieve this is to offer products that are in line if not beyond the forecasted trend.

Outlet ambience is one of the determinants that have a strong relationship with purchase intention. Apart from remodeling the outlets every now and then, retailers are encouraged to look into the overall shopping environment, for example, background music, lighting, visual communication, among others, to be inviting, comfortable and attention to details as Generation Y are the ones that embrace out-of-the-norm concepts.

This research revealed that customer service has the strongest relationship with the purchase intention. Strengthening customer service is the main priority to any businesses that wish to succeed in this competitive environment. Staff training, for example, on product information, how to handle customers and achieving excellent after-sales service are utmost important as customers deem these as the basic and yet critical success factors. People are representative of the brand too.

5.2 Limitations and future avenues of research

The current study focused on one specific age group which is Generation Y therefore further researches are recommended to include other age group, such as Generation X who has stronger purchasing power. Lastly future study may consider the inclusion of other independent variables that may influence the purchase decision among Generation Y.
5.3 Conclusion

This study has sought to find out the drivers of purchase intention of fashion wear among Generation Y and has delivered valuable insights and recommendation to both academics and practitioners in the retailing industry. Companies are able to formulate key strategies to successfully use the power of brand experience as an essential business tool to grow if not sustain the business. Generation Y craves for and embraces the latest social trends. They are willing to participate in new shopping experiences.

References


Model of customer values on the e-healthcare services market

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The development of electronic commerce and communication provides exciting opportunities for the implementation of a powerful framework of resources, tools, and applications that revolutionize the method in which healthcare institutions interact with their patients. In addition, this framework facilitates the delivery and management of medical services. The use of information and communication technologies in the healthcare services market is essential for high-quality and cost-effective healthcare efficiency. New methods of developing and delivering healthcare services for patients raise the questions about their expectations and values for the patients delivered. The objective of this study is to identify value for patients in the e-healthcare market and consequently to develop a theoretical–descriptive model of customer value in the studied market.

Keywords: e-services, healthcare, consumer value

* Corresponding author

1. Introduction

The development of electronic commerce and communication provide exciting opportunities for implementation of powerful framework of resources, tools and applications that revolutionize the way in which healthcare institutions interact with their patients, as well as help to deliver and manage medical services (WHO, 2009). Internet-based healthcare is application of information and communication technologies across the whole range of healthcare functions. Development and implementation of web-enabled communication, patient services and other e-health initiatives are increasingly important in maintaining competitive advantage and competing for market share (Chaudhry et al., 2006). The use of information and communication technologies in the healthcare services market is perceived by doctors and other medical services providers as essential for high quality and cost-effectiveness of healthcare efficiency (Murray et al., 2011). E-healthcare services in practice, provide, or even a create also specific new values for patients/customers. Recognition of different values allows for better explanation of patients values of e-healthcare solutions as well patients behavior in virtual environment. Consequently, problems highlighted in the paper revolve around the concept of customer/patient value on the e-healthcare service market.

The paper describes the nature and scope of value for patients in the market. The purpose of the paper is to identify value for patients in the e-healthcare market, and consequently to develop a theoretical–descriptive model of customer value on studied market. The research results responds to the empirical gap in the literature resulting from the fragmentation and extremely limited range of completed research on the process of creating customer value in health care in virtual environment. The paper shows the results of surveys with patients of different types of medical facilitates. Field research was conducted in 2015 in Poland.

2. Customer value – theoretical background

The term customer value was first introduced in marketing theory in 1954 by P. Drucker when the concept of marketing corporate management was presented (Drucker, 1954). Towards the end of the 1960s, this category appeared in the theory of consumer behavior and referred to the concept of utility
benefit) and satisfaction, part of the theory of consumer choice (Howard and Sheth, 1969; Kotler and Levy, 1969). Later, the use of its original sense was dropped, and the concept of ‘value’ appeared only in studies into consumer behavior, where it was considered to be declared and respected value, or value preferred by buyers (customer value). The notion of value for money recurred in its broader use in economic sciences at the end of the 1980s, according to M. Porter’s research into corporate competitive advantage and his development of a chain model of added-value (Porter, 1985).

Table 1. Customer Value Definition Review.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Customer Value Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. Zeithaml 1988</td>
<td>Defines customer value by exploiting the concept of product utility. Value is an aggregate consumer evaluation of product utility based on the consumer’s perception of what is gained against what is given.</td>
</tr>
<tr>
<td>K. Monroe 1991</td>
<td>Value perceived by buyers comes from the relationship between the quality or benefits that the buyer recognizes in a product and the perceived sacrifices (loss) he/she makes by paying a given price. K. Monroe claims that perceived benefits are composed of the physical attributes of a product, attributes connected with accompanying services and technical support during product utility, as well as the price and other quality indexes. Perceived costs, in turn, comprise costs borne by the buyer during the purchase, such as the product price and the costs of purchase related to</td>
</tr>
<tr>
<td>B. Gale 1994</td>
<td>It is a quality perceived in the market in relation to the price of a given product. Value in industrial markets is, in turn, a perceived equivalence, expressed in monetary units, between a bundle of economic, technical, social, or service benefits gained by a customer’s company and the price paid for the product, compared to the offers and prices of other possible deliverers.</td>
</tr>
<tr>
<td>A. Ravald and Ch. Gronroos 1996</td>
<td>In that definition, apart from the value of the product itself (the company’s offer), there exists a distinct value, which is the result of the relationship between the transaction parties. In their opinion, there are many situations where, despite consumer dissatisfaction with one of the transactions, some prior positive experience that contributed to development of the relationship between the customer and the company encourages him/her to seek compromise.</td>
</tr>
<tr>
<td>R. Woodruff 1997</td>
<td>It is a composition of preferences experienced and evaluated by the customer. These preferences refer to attributes of the product itself; of its functioning; and, finally, of product consumption effects, according to which the customer can (cannot) achieve his/her goals and intentions in the process of product consumption.</td>
</tr>
<tr>
<td>A. Parasuraman, 1997</td>
<td>The need for a dynamic approach to customer value is also emphasized by A. Parasuraman, who points out that customers who make a purchase for the first time tend to concentrate on product attributes, whereas those who do it repeatedly pay more attention to the effects of product consumption and the possibilities of achieving certain goals related to definite goods (one product) or a service.</td>
</tr>
<tr>
<td>Ph. Kotler, 1997</td>
<td>It is a difference between the total customer value and the total customer costs. The total value is composed of a bundle of benefits anticipated by the customer, whereas the total cost is made up of a bundle of costs expected by the customer in connection with the evaluation, purchase, and consumption of a product or service.</td>
</tr>
<tr>
<td>S. Slater and J. Narver, 2000</td>
<td>It is perceived as an emotional relationship between the customer and the producer as a result of consumer consumption of a product or a service that, in his/her opinion, provided him/her with added value.</td>
</tr>
</tbody>
</table>

M. Porter's views on customer value (he called it value for buyer) were based on his abundant scientific work on consumers, including the results of research into consumer satisfaction carried out in 1980. Referring to M. Porter’s study, the term customer value has been widely adopted in contemporary concepts, including Total Quality Management, Business Process Reengineering, Supply Chain Management, Value Based Management, and Customer Relationship Management (Szymura-Tyc, 2003).
Also in the 1990s, customer value reappeared as a subject of scientific interest in the theory of marketing supported by the theory of consumer choice, consumer behavior, and consumer psychology. The term *customer value* was used alongside such notions as utility, benefits, needs, and satisfaction.

The reasons for the development of research into customer value were diverse. First, the concept of utility, a basic category of consumer choice theory, did not place enough emphasis on the costs borne by the consumer in the process of buying and using some definite goods. In consumer choice theory, utility was regarded as tantamount to consumer satisfaction with the benefits from using a product (Kamerschen et al., 1991). Research into consumer satisfaction demonstrated, however, that satisfaction experienced by the consumer depends not only on the benefits that the consumer gains from buying and using a product (utility) but also from the relevant costs that he/she must bear - Theory of Exchange Fairness (Jachnis and Terelak, 1998). This necessitated development of a category that could reconcile both the benefits gained and the costs borne by the consumer. Second, research into consumer satisfaction showed that satisfaction appeared only when the results from buying and using a product exceeded the customer’s expectations of a product at the very moment of product selection - Model of Expected Discrepancy (Furtak, 2003). Considering product utility and satisfaction to be equal did not allow for identification of this relationship. Thus, it was necessary to find a category that would enable researchers to study the relationship between consumer satisfaction, his/her expectations with respect to products, and the results of purchase and consumption of products, with full consideration of both the benefits to be gained and the costs to be borne by the buyer.

All the research into the consumer and marketing has resulted in the development of the notion of customer value. The definition of the category was based not only on classical marketing theories but also on modern theories of behavior and consumer psychology. Development of the notion was also supported by achievements in service marketing and conclusions drawn from a contemporary concept of relationship marketing. Researchers have also referred to M. Porter’s chain model of added-value, which combines value for the customer with added-value for the buyer and the company. Many attempts have been made to define the concept of value for the customer as well as to determine attributes of the category and ways of measuring it.

V. Zeithaml defines customer value by exploiting the concept of product utility. Here, value is an aggregate consumer evaluation of product utility based on the consumer’s perception of what is gained against what is given (Zeithaml, 1988). V. Zeithaml emphasizes that customer value is a subjective and differently perceived category; whereas price constitutes a significant criterion, but its influence on consumers may vary. The author also observes that a clear and legible instruction manual or an assembly manual may be an important factor in a consumer's perception of product value. Moreover, value may be looked upon differently, depending on the circumstances of its consumption.

K. Monroe, in turn, claims that the value perceived by buyers comes from the relationship between the quality or benefits that the buyer recognizes in a product and the perceived sacrifices (loss) he/she makes by paying a given price. K. Monroe claims that perceived benefits are composed of the physical attributes of a product, attributes connected with accompanying services and technical support during product utility, as well as the price and other quality indexes. Perceived costs, in turn, comprise costs borne by the buyer during the purchase, such as the product price and the costs of purchase related to, for example, transfer of title deeds, costs of assembly, costs of exploitation, maintenance (repair) costs, failure risk, or product malfunction risk costs. By assuming that most buyers operate within financial constraints (in the theory of consumer choice, K. Monroe maintained that buyers were more susceptible to borne costs --sacrifices and losses-- than to potential benefits),
K. Monroe proposed that customer value be measured by the ratio of benefits to costs, and not by the difference existing between them. It is worth adding that the proposed concept did not elicit a big response in the marketing literature. However, the majority of researchers are inclined to define value as a difference (excess) between the perceived benefits and the costs. This seems justified inasmuch as the concept of the perceived costs signifies the cost that is subjectively perceived by the customer. Nonetheless, it should be borne in mind that different customers have different reactions to particular cost components (price, effort, time, etc.). With financial constraints related to their income, buyers may be more or less susceptible to price and other components of perceived costs (Szymura-Tyc, 2005).

A considerable contribution to the definition of customer value was made by A. Ravald and Ch. Gronroos, researchers studying the concept of relationship marketing, who extended the definition of value proposed by K. Monroe. They pointed out that apart from the value of the product itself (the company’s offer), there exists a distinct value, which is the result of the relationship between the transaction parties. In their opinion, there are many situations where, despite consumer dissatisfaction with one of the transactions, some prior positive experience that contributed to development of the relationship between the customer and the company encourages him/her to seek compromise. With regard to this, A. Ravald and Ch. Gronroos proposed to take into account the costs and benefits ensuing from the relationship between the buyer and the seller, along with the unpredicted—accidentall costs and benefits connected with a given transaction because they jointly influence the value perceived by the customer. Thus, they referred to concepts elaborated by consumer psychology, known as transaction and accumulated satisfaction, and to the Affective Model of consumer satisfaction. According to the authors, the so-called aggregate unpredicted accidental value is represented by the ratio of accidental benefits and benefits resulting from the relationship to accidental costs and costs resulting from the relationship (Ravald and Gronroos, 1996).

The concepts of transaction satisfaction, accumulated satisfaction, and the so-called attributive satisfaction were used at great length by R. Woodruff in his approach to customer value, which he defined as a composition of preferences experienced and evaluated by the customer. These preferences refer to attributes of the product itself; of its functioning; and, finally, of product consumption effects, according to which the customer can (cannot) achieve his/her goals and intentions in the process of product consumption (Woodruff, 1997). This definition represents a hierarchical system of customer value, which implies a need for its assessment at the level of the attributes of a product and product consumption as well as customer goals and intentions. Moreover, this system reveals not only the process of value development but also best represents the relationship between customer value and satisfaction. Thus, it can be treated as a basis for measuring the satisfaction derived from the assessment of value delivered to the customer (Woodruff, 1997). In his approach to the value definition, R. Woodruff demonstrates the dynamic character of customer value, which means that it may change with time. The need for a dynamic approach to customer value is also emphasized by A. Parasuraman, who points out that customers who make a purchase for the first time tend to concentrate on product attributes, whereas those who do it repeatedly pay more attention to the effects of product consumption and the possibilities of achieving certain goals related to definite goods (one product) or a service (Parasuraman, 1997).

Customer value has also been the subject of Ph. Kotler’s analysis. He defined it as a difference between the total customer value and the total customer costs. The total value is composed of a bundle of benefits anticipated by the customer, whereas the total cost is made up of a bundle of costs expected by the customer in connection with the evaluation, purchase, and consumption of a product or service (Kotler, 1997). According to Ph. Kotler, the total customer value comprises the anticipated
value of a product, service, personnel, and corporate image. The total cost, on the other hand, is composed of such costs as the money, time, energy, and psychical cost expected by the customer. In his definition, Ph. Kotler (1997) emphasizes the fact that customer value is not delivered to the customer (as Ph. Kotler initially declared), but is expected by him/her.

Alongside the definitions of customer value discussed above, the marketing literature presents several others that, in great detail, refer to selected issues connected with the concept of customer value. All the definitions reflect the multifaceted character of studies conducted by scientists and marketing theorists doing research on the category. Although not all of them are considered successful, the overview of the definitions helps to understand the problems encountered by researchers. To provide some examples, B. Gale defines customer value as the quality perceived in the market in relation to the price of a given product (Gale, 1994). Value in industrial markets is, in turn, a perceived equivalence, expressed in monetary units, between a bundle of economic, technical, social, or service benefits gained by a customer’s company and the price paid for the product, compared to the offers and prices of other possible deliverers (Anderson et al., 1993). According to S. Slater and J. Narver (2000), customer value appears when product-related benefits outweigh the costs over the life cycle of the product being consumed by the customer. For the institutional customer, the benefits materialize along with the growth of a unit profit or with an increase in the number of product units sold. The costs over the life cycle of a product being consumed by a customer comprise costs related to finding the product, the operational costs of the product, the disposal costs of the product, and the price of the product. Customer value is perceived as an emotional relationship between the customer and the producer as a result of consumer consumption of a product or a service that, in his/her opinion, provided him/her with added value (Butz and Goodstein, 1996).

Bearing in mind the definitions and achievements in the theory of consumer behavior, consumer psychology, and marketing theory presented above, it can be concluded that customer value appears in the process of consumption of a purchased product. This value is developed through a consumer’s subjective estimation of costs and benefits after product purchase and consumption. These costs and benefits are the only significant element in the assessment of the value obtained by the customer, and customer value itself represents a predominance of benefits over costs perceived by the customer. Based on this, one can venture a statement that customer value is an excess of subjectively perceived benefits over subjectively perceived costs related to the purchase and consumption of a given product.

Benefits gained by customers are connected with the needs they want to satisfy through some product purchase and product consumption. Individual customers seek benefits that can meet their consumption needs. Costs, in turn, have a financial dimension connected with the exchange of goods and money between the company (seller) and the customer (buyer). Besides the financial costs, there are costs that refer to time loss, inconvenience, extra efforts, negative emotions, and other costs for consumers.

In the discussion of customer value, a distinction should be made between the value that is expected and the value that is obtained by the customer. The value expected by the customer can be referred to as an excess of subjectively perceived and expected benefits compared to the costs relating to product purchase and consumption. In light of this definition, such a value constitutes the basis for customer market choices, and is closely related to the concept of utility in the theory of consumer choice. As for value gained by the customer, i.e., customer value, it can be defined as an excess of subjectively perceived customer benefits over subjectively perceived customer costs resulting from the product purchase and consumption. Such a definition of customer value corresponds to the notion of customer advantage in the theory of consumer choice and with added-value, introduced to the management literature by M. Porter.
With respect to the issues discussed above, the following attributes of customer/patients value can be distinguished.

- **Subjectivity**: Customer/patient value is not dependent solely on the service itself, but also on a patient’s individual needs to be satisfied by a medical service and on a patient’s individual capability of covering the costs related to service purchase and service use.

- **Situational character**: The benefits and costs related to the purchase and use of a service are always conditional on the situation in which the service is bought; depending on the situation, the same patient may have a different perception of the benefits to be gained and the costs to be borne.

- **Perceived value**: This means that the assessment of patient value comprises only the benefits and costs that are perceived (recognized) by the patient, and not the benefits that were actually gained or the costs that were actually borne by him/her; the process of benefit and cost perception is connected not only with cognitive processes but also with emotional ones (Szymura-Tyc, 2005).

All the attributes of patient value do not allow direct measuring of the category. Although patient satisfaction can be used as a basic benchmark for customer value estimation, it should be remembered that satisfaction itself is not exclusively dependent on the value gained, but also the value expected by the patient. Even more so, satisfaction appears only when the effects of service purchase and use go beyond consumer expectations of these results.

Another important attribute of patient value concerns its dynamic character, which means that the value changes over time and embraces the whole process of service purchase and service use. In its endeavor to provide a patient with some value, a medical facility ought to focus on the whole life cycle of a service, including all costs and relevant benefits. Thus, patient value represents a complex set of benefits and costs perceived by the patient in the process of buying and using medical services. It is impossible to enumerate all the benefits and costs that are components of value for the patient because their number and variety correspond to the number of patient needs, expectations, and constraints. These needs, expectations, and constraints are subject to alterations because satisfaction of some needs opens the door to other, superior ones. Needs change or diversify, and new ones arise, thus necessitating the development of new medical services that can meet patients’ changing needs and expectations and that can adapt to patients’ varying constraints. Being aware of the fact that benefits and costs are the only determinants of the medical service value perceived by the patient, healthcare units tend to arrange miscellaneous activities that are designed to teach patients to appreciate the attributes of their services. In practical terms, a medical facility can create and model patients’ needs and expectations with respect to the services offered and, ultimately, may affect the assessment of the final value gained by patients.

In order to empirically identify consumption value for customers on e-healthcare the Sheth - Newman – Gross model was used. The distinction of variables of consumption values identified in that model was made by reference to literary sources. Sheth – Newman – Gross consumption value model has been developed in order to explain why the consumer makes choices on the market. It consists of several components and presents a range of specific measures defining factors which determine consumer behavior. The model by Sheth – Newman – Gross focuses on estimation of consumption value which explains why the consumer chooses between making a purchase of a certain product or withdrawing from it (using or non-using a definite item), why the consumer prefers one type of a product over the other one, and finally, why the consumer chooses one particular brand and rejects another. Referring to this, the model can be applied in making a choice connected with a full range of
various products (consumers of consumer durables, of services or industrial goods) (Sheth et al., 1991).

The model by Sheth – Newman- Gross is based upon three central principles:

- consumer choice is a function of little amount of consumer value
- specific value of consumption differentiates efforts put in each particular situation,
- values which constitute the core of the model: functional, social, emotional cognitive and conditional values (Smyczek and Sowa, 2005).

The functional value of a consumer choice is perceived as functional, utilitarian or psychological use of utility obtained through choice attributes (e.g. positive or negative characteristic attributes). The functional value is strictly related to the theory of rationality, which is expressed in a popular term of — the man acting rationallyl. The center of the functional value is occupied by such consumer attributes as durability, reliability and price. This can be exemplified by a car purchase decision which should be based on the price and the promise of car economy.

The social value of a consumer choice occurs as a consequence of relations existing between one or more specific social groups and a consumer choice. Consumer choice produces a social value through correspondence with positive or negative stereotypes of demographic, socio-economic and cultural-ethnic groups (including benchmark groups). Thus, choices are made both with respect to products of daily use (e.g. bicycles, shoes) and „socially-engaged‖ goods (e.g. presents, products used for entertainment).

The emotional value of a choice reveals utility of some goods with regard to their ability to stimulate consumer emotions and feelings. Consumer choice provides the consumer with emotional values when it is related to some specific feelings and when it evokes or sustains these feelings. Products often have some emotional connotations (e.g. excitement during watching one's favorite sports team or a thrill experienced whilst driving a new car).

The cognitive value of a choice displays utility which is connected with abilities to satisfy curiosity, to provide some novelties and/or satisfaction derived from a need of knowledge. A cognitive value is provided particularly by new purchases and experiences, although even slight „change in arrangementl (e.g. change in ice cream flavor) can provide the consumer with cognitive values.

The conditional value of consumer choice shows that the latter is a result of a definite situation or circumstances surrounding the consumer. Consequently, the purchase of some products is related to some specific period or event (e.g. a birthday present). Some goods generate certain atmosphere or provide local benefits (e.g. a suntan lotion), some are connected with once-in-a lifetime opportunity (e.g. purchase of the first car) and finally, some are used only in emergency situations (e.g. visit to the dentist on Sunday evening).

The Sheth – Neman – Gross model is attractive not only due to its composition, but, above all, due to its manner of measuring (Sheth et al., 1991) the five values in different consumer choice situations. Thus, the model presents, in a complex way, the types of values perceived by customers, whereby it is possible to demonstrate different kinds of values and to better explain values expected by consumers. That is why, the direct research conducted on the e-healthcare services market verified the values (functional, social, emotional, cognitive and conditional value.) indicated by Sheth – Newman – Gross in their model of consumption values.

For identifying consumption value for customers on e-healthcare services market was used scale with both endogenic and egzogenic variables in nature:
1. Patients expect safety of e-healthcare services managed by a given entity;
2. Attractive prices encourage patients to use e-healthcare services (% fees, commissions, etc.);
3. Patients expect to be serviced in a professional way;
4. Use of e-healthcare services is fashionable;
5. Patients use definite e-healthcare services because their friends also do;
6. Patients expect politeness on the part of representatives of healthcare institutions;
7. Complex offer of healthcare institutions encourages use of e-healthcare services;
8. Patients often use e-healthcare services under influence of promotional activities of healthcare institutions;
9. Patients want to obtain accurate and factual information;
10. Patients expect modern approach and solutions on the part of e-healthcare institutions;
11. Use of e-healthcare services is necessary on the current stage of socio-economic development;
12. In order to use e-healthcare services the patients must be ready to accept risk;
13. Patients are forced to use e-healthcare services on account of their own health situation;
14. Rich offer of products and services on the market encourages consumers to use e-healthcare services;
15. The use of e-healthcare services is determined by proper (high) income.

3. Methodological aspects of patients’ value research e-healthcare market

In order to empirically identify consumption value for customers on e-healthcare services market survey among customers was conducted with the use of a structured questionnaires. The study comprised adult customers. The research was conducted by means of a questionnaire distributed online among the group of 1,000 respondents in Poland. The structure of the sample group and that of the population of Internet users were identical. Eligible responses were obtained from 927 subjects.

The questionnaire was designed on the basis of the Likert scale and included 15 variables. The distinction of variables of consumption values identified in Sheth - Newman – Gross model was made by reference to literary sources. Once the questionnaire was prepared, the measurements were evaluated by three marketing and statistics professors in terms of their wording/meaning and relevance. The data were analyzed by means of the AMOS 5 program. The scale was first refined by means of Cronbach's alpha and exploratory factor analysis (EFA).

4. Model of customers’ value in e-healthcare services

Study results showed that the value expected by patients in the virtual medical services market is mainly related to safety. Patients also expect to have low prices or even free-of-charge services, faster access to medical information as well as to obtain more comprehensive and accessible information via electronic channels. Among other values expected by patients with respect to the provision of e-healthcare services, one can distinguish better quality of patient service as a result of intense competition between healthcare facilities and a wider range of accessible medical services. Individualization of services presents another value that is highly expected and appreciated.
Table 2. Value expected by patients in the e-healthcare services market.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>52.3</td>
</tr>
<tr>
<td>Comprehensive information</td>
<td>36.5</td>
</tr>
<tr>
<td>Faster information access</td>
<td>30.4</td>
</tr>
<tr>
<td>Wider offer</td>
<td>25.5</td>
</tr>
<tr>
<td>Service Individualization</td>
<td>15.1</td>
</tr>
<tr>
<td>Better service quality</td>
<td>27.1</td>
</tr>
<tr>
<td>Free-of-charge services</td>
<td>35.7</td>
</tr>
<tr>
<td>Lower prices</td>
<td>46.2</td>
</tr>
<tr>
<td>Channel diversification</td>
<td>19.8</td>
</tr>
<tr>
<td>Faster service access</td>
<td>34.8</td>
</tr>
<tr>
<td>Others</td>
<td>4.3</td>
</tr>
</tbody>
</table>

During the next stage of the factor analysis procedure was applied, the variables used in the study were checked in terms of the existence of definite relationships among them. It is worth adding that if the correlations between the variables are low, they are rather unlikely to form strong and easy-to-interpret common factors.

In order to demonstrate that the choice of the factor analysis model as a method of data analysis was correct, the Kaiser-Meyer-Olkin (Walasiak, 2005) index was used. The KMO for the fifteen analyzed variables equaled 0.790, which was relatively high. This result, however, did not guarantee the distinction of some definite factors (or a factor). Therefore, it was necessary to calculate the adequacy of the selection of each separate variable by referring to the MSA_h index, which allows exclusion of some variables before the analysis. Low MSA_h values suggest that h variable correlations cannot be explained through other variables and, therefore, should be excluded from further research (Gorniak, 2000: 150).

Measures of sampling adequacy indicated that the variables, (4) fashion as a social value for the patient, (6) politeness as an emotional value, and (10) modernity as a cognitive value for the patient in the e-healthcare services market, have MSA_h index below 0.5, which excluded them from the analysis. Consequently, the rest of the analysis comprised twelve variables that achieved very high KMO (0.872) and MSA_h (over 0.8) indexes.

In order to determine the number of factors to be used in the remaining analysis, the method of scree plot was employed. This method is based on a scree plot where eigenvalues for definite factors are marked. According to the scree criterion, it is vital to preserve factors that form 'the slope' and to ignore the ones that build 'the scree', i.e., whose combined eigenvalues form almost a horizontal line. The analysis of variables defining the values for patients show that the 'scree' phenomenon appears at the third or fourth factor, which makes the choice of factors for further analysis problematic. In the literature on the subject, scientific opinions are divided: some researchers recommend keeping all factors in the 'slope', including the one that opens 'the scree'; others advise that this factor be ignored (Lehmann et al., 1998: 610).

Determination of the final number of factors to be used in the further analysis was performed through calculation of eigenvalues and the variance percentage explaining other components. The eigenvalue criterion marks the lower limit for the number of factors that are common in the correlation matrix for the population, which means that the number of factors is always equal to or higher than the number defined by the criterion. According to the eigenvalue criterion requiring an explanation percent higher than single digits, the remaining analysis should include factors that explain 68.47 percent of the
variance capacity common for all variables. Application of the principal component method with quartimax rotation made it possible to determine factor loads for particular variables.

D11 .62
Current development of the healthcare services market

D12 .76
Risk management skills

D13 .77
Patient’s health condition

D14 .81
Attractive price offer of services available via e-channels

D15 .67
Adequate patient knowledge

D1 .48
Safety

D2 .66
Free-of-charge services

D3 .52
Accessible medical information

D7 .71
Wider offer of healthcare services

D10 .43
Modernity

D8 .69
Use of e-healthcare services as a result of promotions

D9 .83
Expectations of sound and comprehensive information to be provided by a healthcare unit

Fig. 1. Model of customer-patient value in market of e-healthcare services.

Using the analysis, it was possible to establish three factors that determine the values of patients in market of e-healthcare services.

1) The first factor is described by variables that give information about the circumstances that contribute to (or better the condition of) the use of e-healthcare services, namely: (11) current development of medical services, (12) risk management skills, (13) patient’s health condition, and (14) attractive price offer from healthcare services available via electronic channels, as well as (15) patient’s adequate knowledge, referred to as conditional values of the patient.

2) The second factor reveals variables that provide information on patients’ expectations of medical facilities delivering e-healthcare services: (1) safety, (2) free-of-charge medical services, (3)
accessible medical information, and (7) a wider offer of healthcare services, as well as (10) modernity, a factor called the **functional values of the patient**.

3) The third factor is described by variables that result from willingness to satisfy curiosity or to obtain some knowledge. These are (8) the use of definite e-healthcare services under the influence of some promotional activities and (9) expectations of sound and comprehensive medical information to be provided by a healthcare facility, called the **cognitive values of the patient**.

All things considered, one can venture a statement that patient value regarding the e-healthcare services market is affected by three factors, i.e., conditional, functional, and cognitive ones (Figure 12.2). Because of the specific character of the healthcare services market as well as of the virtual environment itself, emotional value does not play a major role in patients' market choices. Also social value, as indicated by research results, is not of great importance in this market. Patients willingly obtain information from informal sources, but final decisions about the use of certain e-healthcare services are made individually.

5. Conclusions

Bearing in mind the analysis presented above, it can be concluded that patients in e-healthcare services market demonstrate positive attitudes towards virtualization of services in this market. However, their expectations focus mainly on communication and service provision; on value connected with individualization of patient services; and on economic factors, the latter being more typical of economies undergoing transformation. Inclusion of this understanding of value in the strategy of medical facilities will allow for assessment of satisfaction and estimation of patient value in e-healthcare services market.

The elaborated model provides a complex description value of patients in e-healthcare services with respect to cognitive theories. The model offers a wide range of applications; and, in the first place, it should help researchers and market participants comprehend the complex elements of value of patients and consider patients’ decision-making processes from another perspective (different from the one assumed in the subject literature). Moreover, the model takes into consideration that virtualization of the healthcare services market is a vital factor determining patients’ behavior.

Thus, a conclusion can be drawn that the identified model of value for patients serves not only scientific, but, above all, practical functions (descriptive-explanatory). The model allows simple identification and explanation of market gaps between patients’ expectations of the virtual environment and representatives of medical facilities responsible for provision of value.

The main limitation of the research is the fact that it was conducted in one country, Poland and in the big cities. The research results conducted in rural area or in more advanced economies could influence the final results and conclusions.

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**References**


Chaudhry B ; Wang J ; Wu S; et al. (2006). Systematic review: impact of health information technology on quality,
efficiency, and costs of medical care. Ann Intern Med.; 144: 742-752
Festival quality, visitors’ satisfaction and behavioral intentions

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Many people participate in festivals and events during their leisure time. In recent years, an increasing number of leisure festivals and events happen in Taiwan. The public and private sectors organize festivals and events to improve images, educate customers, or develop the industrial and tourism industries. Previous studies focused on the visitors’ motivation, satisfaction, and loyalty. However, studies on quality perceptions and emotions of the visitors of the military festival are still rare. The current researchers explore the relationships among festival quality, positive emotion, satisfaction, and behavioral intentions in Taiwan. They use the questionnaire method to survey the respondents who had participated in the military festival. The authors collect 254 samples and use the structural equation model method to analyze and confirm the following ideas. First, the festival quality perceptions of visitors, including of program content, staff behavior, places and atmosphere, and information and facilities, positively affect their positive emotions and satisfaction. Second, the positive emotion of visitors positively affects their satisfaction and behavioral intentions; visitors’ satisfaction affects behavioral intentions thereafter. The festival organizers must improve the festival quality perceptions and positive emotion of visitors to improve their satisfaction and behavioral intentions.

Keywords: festival quality, emotion, satisfaction, behavioral intentions

* Corresponding author

1. Introduction

There are many kinds of festivals and events in the world. Many organizations organize the festivals for the purposes of tourism and economic (Grappi and Montanari, 2011). People attend the festivals for different motivations, such as escape, knowledge, entertainment and novelty (Savinovic, Kim, & Long, 2012). Previous studies explore the relationship among the festival quality, attendees’ satisfaction and loyalty or behavioural intentions and confirmed the relationship of festival programming quality, visitors’ satisfaction and future behavioural intentions (Mason and Paggiaro, 2012; Yan, Zhang, & Li, 2012). Yoon, Lee, & Lee (2010) indicate that festival quality positively affect value, then influence on visitors' satisfaction and loyalty and Yuan and Jang (2008) argued that festival quality influences the attendees' satisfaction, but does not directly affect attendees' behavioural intentions.

In addition, previous literatures explore the roles of attendees’ emotion in the festival context. Many studies confirm that festival program quality impacts on attendees’ emotion and satisfaction positively, then attendees’ emotion positively impacts on attendees’ behaviours (Lee, 2014; Lee et al., 2008; Mason and Paggiaro, 2012; Wong, Wu, & Cheng, 2015). Lee, Lee, & Choi (2011) suggest that festival impacts on emotional value more than on functional value. Grappi and Montanari (2011) study both impacts of attendees’ positive and negative emotion and point out that both positive and negative emotion mediated between festival environmental, attendees’ satisfaction and re-patronizing intentions.
Despite the importance of emotions and psychological commitment on loyal behaviour, little empirical study explores the simultaneous effects on festival loyalty in the tourism literature (Lee, 2014). In addition, there are still rare to study the military festival context. The purpose of the study is to investigate the impacts of visitors’ quality perceptions and emotions of the military festival. The researchers propose a conceptual model to test the relationship among military festival quality perceptions, visitors’ positive emotion, satisfaction, and behavioral intention. The empirical results would help festival organizations learn how to organize a successful festival.

2. Literature review

2.1 Festival, satisfaction and behavioral intentions

Many public and private sectors organize festivals for many different purposes, such as tourism, education, and economics. Many people attend the festivals for different motivations. Savinovic, Kim, & Long (2012) point out eight motivations to attend the festival: such as community support, escape, knowledge/education, —food, wine, and entertainmentl, novelty, family togetherness, marketing, and socialization. Festival audiences’ motivations are antecedent variables of satisfaction and the likelihood of future attendance, and satisfaction has a direct impact on the likelihood of future attendance (Savinovic, Kim, & Long, 2012). Wan and Chan (2013) identify eight factors of food festivals, including location and accessibility, food, venue facility, environment/ambiance, service, entertainment, timing and festival size. Mason and Paggiaro (2012) argue that festival organizers should pay attention on the exogenous variable, such as food and wine quality, comfort and entertainment. The literatures confirmed the positive relationship between visitor’ quality perceptions, customer satisfaction, and behavioural intentions.

Song et al. (2014) examine Korean Medicine festival and confirm that the program quality, facility, and convenience influence tourists’ satisfaction. Wong, Wu, & Cheng (2015) analyse Macau Food Festival attendees and indicates that festival quality and image increase the emotion and satisfaction of attendees, then to improve the attendees’ loyalty to the festivals. Yan, Zhang, & Li (2012) identify six dimensions of festival programming quality: diversity, stakeholder balance, incrementally, simultaneity, flexibility and linkage, and the festival programming quality impacts on the attendees’ satisfaction and behavioural intention. Yoon, Lee, & Lee (2010) examine the Ginseng festival and indicate that festival quality, such as program, souvenirs, food, and facilities affect value, then influence on visitors' satisfaction and loyalty. Yuan and Jang (2008) reveals that festival quality influences the attendees’ satisfaction with the festival, and satisfaction impacts on awareness of local wines and wineries, and festival quality does not directly affect attendees' behavioural intentions, whereas satisfaction and awareness have direct impacts on attendees' behavioural intentions. The previous literatures show that customer satisfaction mediated the relationship between festival quality and visitors’ behavioural intentions. The researchers propose the hypothesis as following:

H1: Festival quality positively impacts on visitors’ satisfaction.
H2: Festival quality positively impacts on visitors’ behavioral intentions.
H3: Visitors’ satisfaction positively impacts on visitors’ behavioral intentions.

2.2 The roles of visitors’ emotion

The emotion plays an important role in the visitor’s festival experience. Grappi and Montanari (2011) suggest that hedonism value and social identification are key factors between festival environmental cues and attendees’ re-patronizing intentions, in addition, attendees’ positive and negative emotion play mediating roles between festival environmental cues and attendees’ satisfaction and re-
patronizing intentions. Lee (2014) confirmed that festival atmospherics had an indirect influence on attendees' loyalty via positive attendees' emotions, satisfaction, and psychological commitment. Lee, Lee, & Choi (2011) suggested that festival programs and facilities influenced both functional and emotional values and the festival program impacts on emotional value more than on functional value, in addition, emotional value impacts both attendees' satisfaction and behavioural intentions more than the impacts of functional value. Lee et al. (2008) suggest that festival environmental cues, such as food quality and program content, affect patrons' emotions and satisfaction, then patrons' emotions and satisfaction mediate the relationship between the festival environment and festival loyalty. Mason and Paggiaro (2012) argue that both festivalscape and the attendees' emotions impact on the attendees' satisfaction, which in turn has effects on the attendees' behavioural intention. Wong, Wu, & Cheng (2015) analyse the Macau Food Festival attendees and indicates that festival quality and image increase the emotion and satisfaction of attendees, then increase the attendees' loyalty toward food festivals. The previous researches suggest that festival attendees' positive emotion mediated the relationship among the festival quality, attendees' satisfaction and behavioral intentions. Thus, the study proposes the hypothesis as following:

H4: Festival quality positively impacts on visitors' positive emotion.
H5: Visitor positive emotion positively impacts on visitors' satisfaction.
H6: Visitor positive emotion positively impacts on visitors' behavioral intentions.

3. Methodology

3.1 Data collection

Many visitors attended the military festival in Taiwan. The military festival would display military aircraft, history and military shows. The purposes of military festival are to improve the visitors' military knowledge and favorable impression. The researchers use convenient sampling method to collect samples who had participated in the Taiwan military festival. The researchers explained the research purposes to the visitors and invited the visitors to fill in self-report questionnaire. The researchers collected 254 samples' data for analysis.

3.2 Measurements

The researchers modified the measurements from previous literatures. Except for the samples' characteristics, all measurement items are measured by 5-point Likert scale from 1(=strongly disagree) to 5(=strongly agree). The measurements of festival quality and positive emotion are modified the measures used by Grappi and Montanari(2011). The festival quality includes four dimensions: program content, staff behaviors, places and atmosphere, and information and facilities. The measurements of customer satisfaction are modified the measures used by Yoon, Lee, & Lee (2010). The measurement of behavioral intentions was modified the measures used by Lee, Lee, & Choi (2011). The measurements of positive emotion, visitor satisfaction, and behavioral intentions are one dimension.
4. Results

4.1 Descriptive statistics

The sample characteristics were showed in table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>%</th>
<th>Variable</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>135</td>
<td>53.1</td>
<td>Married</td>
<td>114</td>
<td>45.1</td>
</tr>
<tr>
<td>Female</td>
<td>119</td>
<td>46.9</td>
<td>Single</td>
<td>110</td>
<td>43.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Children</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Under 20</td>
<td>105</td>
<td>41.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>21-40</td>
<td>80</td>
<td>31.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>41-60</td>
<td>55</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>61 and above</td>
<td>14</td>
<td>5.5</td>
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</table>

4.2 Reliability and validity

The researchers use SPSS and Amos software to analyze the samples data. The mean, standard deviation, correlation, composite reliability, and the square root of AVE (Average Variance Extracted) for each construct were showed in table 2. The Cronbach’s α of the multiple item scales are: program content (.923), staff behaviours (.873), places and atmosphere (.913), and information and facilities (.817), and the Cronbach’s α of overall festival quality is .957. The positive emotion, visitor satisfaction and are one dimension, and the Cronbach’s α are .945, .918 and .922. All of the Cronbach’s α coefficients were higher than the cut-off point of .7 (Nunnally, 1978), indicating that the reliabilities for each construct are acceptable and good internal consistency. The authors use confirmatory factor analysis (CFA) to test the convergent validity of the measurements and the results show that all average variance extracted (AVE) of the measurements exceeded .5 (Fornell and Larcker, 1981) and factor loadings of all indicators were significant (Anderson and Gerbing, 1988). The convergent validity was supported. Besides, the square root of AVE for each construct were greater than the inter-constructs correlation (Table 2), and the results confirm the discriminant validity of the measurements (Fornell and Larcker, 1981).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Composite Reliability</th>
<th>Festival Quality</th>
<th>Positive Emotion</th>
<th>Visitors' Satisfaction</th>
<th>Behavioral Intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Festival Quality</td>
<td>4.105</td>
<td>.6357</td>
<td>.942</td>
<td>.397</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Emotion</td>
<td>4.214</td>
<td>.758</td>
<td>.946</td>
<td>.750 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitor Satisfaction</td>
<td>4.242</td>
<td>.720</td>
<td>.924</td>
<td>.771**</td>
<td>.817**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral Intentions</td>
<td>4.111</td>
<td>.761</td>
<td>.921</td>
<td>.714**</td>
<td>.801**</td>
<td>.851**</td>
<td>(.863)</td>
</tr>
</tbody>
</table>

**p <0.01, numbers in parentheses are the square root of AVE (Average Variance Extracted).

4.3 Model analysis

The researchers use structural equation modeling (SEM) to test the relationship among the festival quality, visitor positive emotion, satisfaction and behavioral intentions in the Taiwan Military festival. The authors evaluated the structural model fit (Bagozzi and Yi, 1988). The indexes of the structural model fit were: $\chi^2 = 1336.545$, d.f. = 424, $\chi^2$/d.f. = 3.152, CFI = .878, GFI = .724, and RMR = .042. The indexes showed that the goodness of fit for the proposed model were well.
Table 3 shows the results of the hypothesis tests. The impact of festival quality on visitors’ satisfaction is significant, the path coefficients is .451 (t = 5.930, p < .001). However, the impact of festival quality on visitors’ behavioral intentions is not significant. In addition, the impact of visitors’ satisfaction on visitors’ behavioral intentions is significant, and the path coefficient is .717 (t = 7.046, p < .001). Therefore, the hypotheses 1 and the hypotheses 3 of the study were supported, but the hypothesis 2 of the study was not supported. The results of the study show that the impact of festival quality on visitors’ positive emotion is significant. The path coefficient is .813 (t = 10.822, p < .001). The result confirms that the hypotheses 4 of the study. In addition, the both impacts of visitors’ positive emotion on visitors’ satisfaction, and visitors’ positive emotion on behavioral intentions are significant. The path coefficients are .486 (t = 6.826, p < .001) and .215 (t = 2.716, p < .01). Therefore, the hypotheses 5 and the hypotheses 6 of the study are empirically supported.

Table 3. Hypothesis tests.

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
<th>t-value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Festival Quality → Visitors’ Satisfaction</td>
<td>.451***</td>
<td>5.930</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 Festival Quality → Behavioral Intentions</td>
<td>.024</td>
<td>3.19</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3 Visitors’ Satisfaction → Behavioral Intentions</td>
<td>.717***</td>
<td>7.046</td>
<td>Supported</td>
</tr>
<tr>
<td>H4 Festival Quality → Positive Emotion</td>
<td>.813***</td>
<td>10.822</td>
<td>Supported</td>
</tr>
<tr>
<td>H5 Positive Emotion → Visitors’ Satisfaction</td>
<td>.486***</td>
<td>6.826</td>
<td>Supported</td>
</tr>
<tr>
<td>H6 Positive Emotion → Behavioral Intentions</td>
<td>.215**</td>
<td>2.716</td>
<td>Supported</td>
</tr>
</tbody>
</table>

** p <0.01, *** p < 0.001;

5. Conclusion

5.1 Conclusions and discussions

The researchers study the relationship among military festival quality, visitors’ emotion, satisfaction and behavioral intentions in Taiwan. The study confirms that: First, festival quality positively impacts on visitors’ emotion and satisfaction. The festival organizer improve festival quality would increase the visitors’ positive emotion and behavioral intentions. The festival organizer should improve the festival quality dimensions, including of program content, staff behaviors, places and atmosphere, and information and facilities. The organizer should design interesting program and organized program well to provide good quality program. Then, the human resource sector should train the staff to be knowledgeable, quick responsiveness to requests and kind during the festival. Besides, the organizer should select an adequate sites and easy to reach. In addition, festival organizer should provide enough festival information, adequate transport services and parking places. Then, the visitors would be higher level of positive emotion, such as happy, pleased, energetic and excited. These efforts would increase visitors’ satisfaction.

Second, the positive emotion of visitors impacts on both visitors’ satisfaction and behavioral intentions. The organizer should improve the visitors’ positive emotion to increase visitors’ satisfaction and behavioral intentions. The higher visitors’ satisfaction would be higher level of visitors’ behavioral intentions. The satisfied visitors would be willing to attend the festival in the future and recommend the festival to their friends.

Third, though festival quality does not directly impact on visitors’ behavioral intentions, festival quality impact on visitors’ behavioral intentions via visitors’ emotion and satisfaction. The festival quality indirectly impacts on visitors’ behavioral intentions.

5.2 Limitations and future research

The study limitations are as following: First, the study samples are Taiwan military festival visitors, and the research results may be different in other areas. Future researches could survey different
samples or areas. Second, the authors study the relationship among festival quality, visitors' positive emotion, satisfaction and behavioral intentions, many other factors would impact on the decision making of attending festival. Future researches could explore the impacts of other variable, such as social identification. Third, the researchers use cross-sectional method and the results may be biased. Future researchers could use longitudinal method to survey.

References


What are the impacts of sustainability to business and the smallholders in Thailand?
Based on values-based service business

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Nestle (Thai) Ltd., Thailand

The challenges of global trends regarding sustainability and service business are linked in the sense of a values-based service concept toward sustainable service business. A values-driven strategy emphasizes on the triple bottom line (TBL) thinking to create value to customers, suppliers, and other stakeholders by embedding on economic, social, and environmental perspective. This strategy is also related to the philosophy of sufficient economy (PSE), which was reiterated by King Bhumibol Adulyadej in 1997 as a crucial factor in restoring Thai economic stability when Thailand confronted the worst economic crisis in 1997. With three main principles, namely, moderation, reasonableness, and self-immunity, PSE emphasizes reasonableness and moderation in using environmental and natural resources along with self-immunity, thereby encouraging people to be conservative and concerned about the future toward environmental sustainability, morality, and knowledge as the crucial complements to succeed in employing the concept. (The main aim of the current study is to understand and analyze the crucial role of values-based service thinking toward shared values and shared meaning by co-creating value with the smallholders at the base of the pyramid (BoP) in Thailand and to attempt to integrate them in sustainable Thai businesses.

The theoretical framework was based on value co-creation at the BoP, values-based service, smallholders, and sufficient economy. Using this theoretical framework as basis, this study adopts a qualitative approach and case study method. The main case of this study is the leading businesses in Thailand that have closely worked with smallholders. The practices were analyzed and investigated in accordance with the manner in which they created value with the smallholders in Thailand. The data for the study were collected through extensive personal interviews with the company and smallholders, observation, and relevant document analysis specifically focused on the BoP approach.

This study contributes to the service research at the BoP by understanding the role of sustainable business in co-creating value to smallholders. Results of the current study revealed that enterprise has recently committed itself to the values-based service concept by embedding the TBL thinking to create value for smallholders. However, a good relationship exists between the company and the smallholders focused on shared values and shared meaning; poverty cannot be alleviated directly. This study can be a good starting point to further develop and empower smallholders by increasing their knowledge and performance, thereby affecting value co-creation. This study contributes the idea of replacing the middle-men with the local community in the value chain. The generalization made from this study can be used as a comparative study in other settings at the BoP.

Keywords: values-based service business, triple bottom line, base of the pyramid, service dominant logic, value co-creation
1 Introduction

In the recent decades, social and environmental awareness has been increased within the global business enterprises; especially those that exist in developed countries have been stimulated and adopted the sustainable concept. Meanwhile, an agricultural based society like Asian countries have put so much effort into accelerating its industrial development (Kuasirikun & Sherer, 2004). However, the economic development only situates at the middle and upper level of people in the economic pyramid while ignoring major population who are situated at the BoP. The global trend encourages the business worldwide to incorporate sustainable thinking into their business practice while still showing concern regarding the business’s role in contributing to the alleviation of poverty at the Base of the Pyramid (BoP) towards sustainable development (Sebahtu, 2008; Hahn, 2009).

To go along with global sustainability trends, enterprises have to adapt their ways of performing to escape from a short term financial focus to achieve long term triple bottom line integration which consists of economic, social, and environmental issue along with added value (Hardjono & Marrewijk, 2001; cited in Jamali, 2006, pp.809). Thus, social responsibility in this context intertwines sustainable development, corporate social responsibility and stakeholder approach in the business model which situates value as the core to provide a consonant in such concepts (Wheeler et al., 2003). Sustainability together with shared values and value co-creation as global service trends (Edvardsson et al., 2012) must be integrated into sustainable business to achieve long term benefits of enterprise and stakeholders.

In this thesis, we focus on the leading sustainable businesses that involve smallholders at the BoP as business partners. The case and field study and interview data collected from smallholders will be discussed based on provided theoretical framework. Thus, a more explicit picture of interrelationship between sustainability and smallholders at the BoP can be developed.

1.1 Problem background

During this era, the business enterprises have increased their attention to invest at the base of the pyramid through the lens of inclusive capitalism. By conducting inclusive capitalism, the enterprises aim to gain profitability for its shareholders and concurrently enhancing humankind by developing the well-being of poor people that are situated where the company operates. Hart (2007) states that the enterprise has moved towards inclusive capitalism by engaging itself with the base of the pyramid, this leads them to have more opportunity to be successful and gain high profitability and thus share their success towards poor people at the base of pyramid. Subsequently, the BoP approach has been widely discussed among various researchers and applied to business enterprises as a win-win strategy, which generate profits to shareholder and simultaneously helps to alleviate poverty (Kandachar & Halme, 2008).

1.2 Purpose and research questions

The main aim of this thesis is to understand and analyze/asses sustainable development to develop sustainable business more effectively and efficiently while deepening the sustainable business’s role regarding to shared values with the smallholders at the BoP. The research questions are;

- What are the sustainable challenges and opportunities that the enterprises have to confront when implementing sustainable business towards smallholders at the Base of the Pyramid (BoP)?
- How sustainability can successfully include smallholders with the objective to achieve long term benefits of enterprise and stakeholders while improving at the Base of the Pyramid (BoP)?

2. Research methodology

2.1 Research strategy

The Qualitative research is an approach which is applied to analyze and examine the available data which aims to assist the researchers to understand the particular circumstances by gathering information and afterwards compare, contrast and categorize the target of study (Creswell, 2009). It emphasizes on the study of people’s perceptions and experiences, thus the researchers mostly gather the data from multiple sources through the observation of human behaviour, investigation of documents and conducting personal interviews (Creswell, 2009). This thesis applies qualitative strategy because the researcher would like to explore in-depth study of particular circumstances by gathering data from documents and personal interviews.

2.2 Research approach

According to Creswell (2009), the deductive approach aims to test or verify theories or generalizations. The process initiates with an established theory and generalization to form the hypothesis and attempts to collect data and find out the results to prove or disprove theories and/or generalizations.

This thesis applies deductive approach as it firstly introduces the existing theories regarding sustainable development, which highlights on the BoP approach. Afterwards the research questions are developed and data are collected by applying case study of the leading sustainable enterprises and then conduct personal interview for in-depth study in order to testify and reflect over the findings.

2.3 Case study method

Case Study research is one of the research methods which can be defined as an inquiry which emphasizes on the exploration of a phenomenon (Woodside, 2010). This thesis applies case study to investigate the leading enterprises’ practices in order to find out how they strengthen their performance while developing smallholders. The information from case study are collected from company’s official websites and also other websites in order to ensure that the data are reliable by comparing data among these sources.

2.4 Data collection

2.4.1. Primary data

Primary data is a specific data, which is gathered from original sources by the authors which aims to collect specific data and information to answer the research questions (Cooper & Emory, 1995). The primary data and information are collected directly from targeted a person or group by using various methods, for instance, conducting interviews or with the use of questionnaires (Bryman & Bell, 2007). In this thesis, to fulfil the aim of the study and answering the research questions, the primary data is collected from different sources: interviews, document analysis (published and unpublished) and observation.
2.4.2. Secondary data

In contrast with primary data, secondary data is collected indirectly from the original sources as the authors gather data from the previous studies, which can support the present studies (Cooper & Emory, 1995). Cooper & Emory (1995) also mentions that secondary data comprises of internal and external sources; internal source is the data that provided by the organization situated in the area of research and external data is the published data that provided by outsources.

This thesis mostly collects secondary data from online based. In the theoretical part, the data is mainly gathered from scientific journals, databases and student theses, which are available at Karlstad University’s database like Business Source Premiere, Emerald and etc. The web search engines such as Google, Google Scholar, Academic Search Elite and so forth will also be observed. The key words are basically applied triple bottom line, stakeholders, smallholders, base of the pyramid (BoP), sustainable development, sustainable business, and corporate social responsibility.

3. Theoretical framework

3.1 Sustainable Development (SD)

According to a survey regarding the definition of sustainable development (SD) based on academic and non-academic literature, the broadly acceptable definition applied among academic literature is often referred to as the Brundtland report of the World Commission on Environment and Development (WCED) (1987, pp. 9; cited in Lombardi et al., 2010, pp.168) SD is described as the present generation’s advancement without diminishing the next generation’s attempt to attain to their needs. Banerjee (2002; cited in Lombardi et al., 2010, pp.170 ) criticized term organizational strategies for SD in terms of theories and practices which is mostly focused on economic and partly environmental sustainability while less emphasized on social sustainability regarding the organizational role of business. Lombardi et al. (2010) also mentioned the crucial of economic, social and ecological sustainability integration in the organizations’ performance, as well as the vital role of stakeholders which must be more considered and analyzed into practice in consistent with SD concept. Wheeler et al. (2003) viewed SD in term of business as value creation on three issues namely economic, social and environment. In line with SD concept, Thai sufficient economy philosophy should be introduced to picture sustainable thinking in Thai business context.

3.2 Triple Bottom Line (TBL)

According to the influence of CSR which encourages business management to unite social and environmental values into business operations, TBL was introduced and widely applied to worldwide enterprises. TBL is a management approach to fulfil all of the corporate responsibilities, basically it can be considered as an approach used to evaluate and report organizations’ responsibilities regarding economic, social, and environmental issues (Elkington, 1999; cited in Jamali, 2006, pp.812). The broadest use of TBL is to track all values, issues and processes of corporate performance through business practices and added economic, social, and environmental value creation in order to reach the most positive effects for organizations (Jamali, 2006). TBL itself, however, still lacking an explicit framework to integrate social and environmental into the single bottom line of economic dimension, so the three pillars of sustainability are facing the challenge to manage the trade-offs (Jamali, 2006). Therefore, CSR and TBL are related in the sense of stakeholder values and value co-creation.
3.3 Base of the Pyramid (BoP)

Towards, the lenses of inclusive capitalism, the business enterprises shift the investment downward from middle and upper-income people to poor people at the base of pyramid with the intent to seek opportunities to enhance its growth and profitability while simultaneously developing humankind. Subsequently Base of the Pyramid (BoP) approach has been discussed and applied by various researchers and practitioners.

3.3.1 What is considered as poverty?

Based on TBL thinking which fulfils corporate responsibility by integrating social, environment and economic dimensions, the Base of the Pyramid (BoP) approach has been widely discussed among practitioners and researchers whether it strengthens or weakens TBL thinking and sustainable business concept. The BoP approach refers to business activities which endeavour to alleviate and develop poverty (Kandachar & Halme, 2008). This approach has been promoted among entrepreneurs as win-win strategy which tends to alleviate poverty and create opportunities for poor people along with generating profitability to entrepreneurs (Kandachar & Halme, 2008).

The term —poverty— has been widely described into two groups. The first group is the individual who gains $1 per day. This group is considered to be —extremely poor—and the second group is the individuals who gain $2 per day, considered to be —moderately poor (Kandachar & Halme, 2008). In general, poor people have no privilege and lack of power in dealing business. This rises up the argument that poverty is not only concerned with the income but also related to the quality of standard of living which comprises of physical and psychological matters (Kandachar & Halme, 2008). It is about the individual well-being which concern with so many factors. For instance, healthy, safety, steadily, peacefully, the sense of belonging to the society and so forth (Kandachar & Halme, 2008). Thus, human-centred approach is applied to the BoP approach as it supports through perception that every individual has their own right to rise up their voices with all circumstances they are involved (Kandachar & Halme, 2008).

BoP approach has been discussed and defined by various researchers and there are two major perspectives in this approach. The first perspective, large company perceives individuals who posits at the lowest level of pyramid as —consumers— that generate profits to the company. The company attempts to develop these individuals to get rid of poverty and have ability to purchase the companies’ products and services (Prahalad, 2004; cited in Kandachar & Halme, 2008, pp.2). Prahalad & Hart...
(2002) mentioned that the company that has potential to penetrate market in the BoP will be able to improve its growth and profitability while enhancing humanitarian. Prahalad (2004) mentions that individuals at the BoP are crucial factors that create highly income to the market and capable of shifting up their positions and alter the shape of pyramid to diamond instead (Sebhatu, 2008; cited in Kandachar & Halme, 2008, pp.147). Prahalad’s thought was supported by the case of Muhammad Yunus and Grameen Bank as they operate their business together with supporting the individuals in the BoP resulted in high productivity and profitability and their businesses were recognized in worldwide (Sebhatu, 2008; cited in Kandachar & Halme, 2008, pp.147).

However, this perspective was criticized that most of the companies tending to increase its profitability by doing business with the BoP level are always unsuccessful as they have to confront with high cost of transportation, marketing and so on due to the deficiency of infrastructure (Karnani, 2007). Moreover, individuals at the BoP level are poor and they have low income so they do not have purchasing power. The company who wish to sell products to these individuals cannot set up high price, thus the margin is quite low and hardly be able to cover all the costs (Karnani, 2007). In consequence, the second perspective states that large company should perceive individuals who posit at the lowest level of pyramid as producers (Wilson & Wilson, 2006; Hart, 2005; cited in Kandachar & Halme, 2008, pp.2). This perspective encourages individuals at the BoP level to be producers and also increasing the purchase of products and services from them. Therefore, they will gain higher income and be able to purchase products and services from the large company which lastly results in the increase of company’s profitability (Karnani, 2007).

These two perspectives have yet been discussed among researchers and practitioners and applied differently according to different management’s perspectives. Management needs to study both pros and cons of each perspective and select the one that most appropriate to nature of business and maximize value to company itself, customers and stakeholders.

3.3.2 Sustainable development and corporate responsibilities at the BoP

At the beginning, social responsibility is the major topic to be discussed in the BoP approach, recently environment responsibilities issues has been raised to be discussed as well (Kandachar & Halme, 2008). The BoP approach does not only emphasize on mitigating environmental damages and social violation, the approach also concerns on how the companies contribute to develop their core values and strategies to enhance sustainable concept (Kandachar & Halme, 2008).

In order to enhance sustainable concept and achieve the poverty alleviation, all parties including companies, stakeholders and NGOs should be cooperated one another to create value to social and environment (Sebhatu, 2008; cited in Kandachar & Halme, 2008, pp.147). These parties can collaborate together to create innovation and value co-creation to introduce the BoP as a new market segment or create niche channel in existing market, for instance NGOs and local business can be a supporter or intermediate parties among various stakeholders to promote the positions of smallholders who posited in the BoP level by reducing pressure within the market and also representing smallholders as the crucial factor that drive economic development (Sebhatu, 2008; cited in Kandachar & Halme, 2008, pp.148).

However, the BoP approach has been criticized that the alleviation of poverty raises higher consumption and thus create negative effects to ecological sustainability (Kandachar & Halme, 2008). Therefore, the company should consider the negative effects that might occur before adopting the BoP approach. The successful of the BoP approach requires the balance between economic and social responsibilities. The satisfaction between two parties which are entrepreneurs and smallholders need
to be fulfilled. Profitability and benefits of shareholders are crucial, at the same time stakeholders’ values should also be emphasized, thus CSR should incorporated with the BoP strategy (Davidson, 2008; cited in Kandachar & Halme, 2008, pp.462).

4. Discussion

This thesis aims to study and reveal how sustainable business adopted TBL thinking and develop smallholders to strengthen their performances. The researcher tends to find out the possibility and pathway of sustainability to embrace smallholders at the BoP level. We selected some leading enterprises which have attempted to broaden its social practices to smallholders by encouraging them to act as a business partner to conduct the case study.

This thesis has demonstrated that sustainability concept enables the enterprise to establish strong core values and with the aim to create value to customers and stakeholders which drive company to strengthen its performance and achieve high competitive advantage. Although enterprises’ role in strengthen smallholders’ performance were found out that they cannot directly alleviate poverty to smallholders due to some barriers, still they indirectly increase employment intensity which results in higher standard of living for the BoP smallholders which is a good starting point as it acts as a pathway which leads to develop smallholders and help alleviate poverty in the coming future.

The further research should carry out more case studies in various kinds of industries and countries which still do not succeed in sustainable development to be able to identify the obstacles and develop sustainable development concept. It is also interestingly for the further research to align on smallholders as a customer in order to compare and contrast the results with the findings in order to continually develop the best approach to alleviate poverty for smallholders at the BoP level.

References


The 7th International Research Symposium in Service Management 2-6 August 2016
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Chao Phraya River has a significant role in many royal ceremonies.

Banana leaf which Pad Thai is served from, is also used as Krathong in the 1st Krathong Festival.

Each meal by Thailand’s river is special because of the breathtaking views.

Enjoying Pad Thai

Pad Thai is eaten with banana blossoms.

The Temple of Dawn on the Chao Phraya River

Banana tree trunk is used as a punching bag in Muay Thai.

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